UNDERSTANDING PRIMARY SCHOOL TEACHERS' KNOWLEDGE AND ATTITUDES AROUND HIV AND AIDS

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DECLARATION

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work. I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and I have not, previously in its entirety or in part, submitted it for obtaining any qualification.

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ABSTRACT

Teachers have been strategically positioned to mediate information that might lead to increased HIV and AIDS knowledge and preventative measures among school-based youth. This study attempted to understand such teachers' knowledge and attitudes within a particular social context using the Bio-ecological systems model of Bronfenbrenner. The systems model provided the framework for understanding teachers' knowledge and attitudes of HIV and AIDS given their choices in terms of background, knowledge, attitude, and their links with multiple systems.

The study was conducted within the qualitative paradigm. Semi-structured interviews were conducted with thirteen intermediate phase primary school teachers from seven primary schools in Phillipi, Cape Town. This study showed that teachers were aware of being part of complex systems. They expressed their difficulties with teaching HIV and AIDS education in the classroom, particularly conditioned by cultural taboos.

This study further showed that teachers' interactions, particularly with people living with HIV and AIDS, changed their knowledge of, and attitudes towards, HIV and AIDS and the teaching thereof. It also pointed to the dissonance between teachers' beliefs and behaviours in serving people living with HIV and AIDS. For some teachers, religious beliefs provided the means with which to deal with the HIV and AIDS pandemic. For others, particularly some female teachers, unequal gendered roles and expectations with regard to sex and sexuality in their communities had a direct impact on the spread of HIV and AIDS and safe-sex practices (knowledge) in their communities. Finally, teachers were actively and critically engaged with systems that impact upon them; particularly, the Macrosystem of the Education Department (in this case, the Western Cape), and the Microsystems of the societies and communities within which their schools were located.

In summary, the study showed that a contextual, system-related approach to teachers in the classroom highlighted how they related to HIV and AIDS. Such complex, and inter-connected relations cannot be ignored by teachers,

educators, policy-makers, material developers and trainers. More studies will give us a better model of the challenges and opportunities facing those who are helping stem the tide of the pandemic.

OPSOMMING

Onderwysers is in ‘n strategiese posisie om inligting oor te dra aan jong leerders wat sal lei tot meer kennis van MIV en ook sal voorkom dat dit versprei. In hierdie studie is onderneem om onderwysers se kennis en denkwyse in ‘n besondere sosiale verband te verstaan, deur gebruik te maak van die Bio-ekologiese stelsels-model van Bronfenbrenner. Die stelsels-model voorsien die raamwerk om onderwysers se kennis en houdings van MIV/VIGS te verstaan, aangesien hulle keuses maak in terme van hulle agtergrond, kennis, denkwyse en hulle kontak met meervoudige stelsels. Hierdie studie is uitgevoer in die kwalitatiewe paradigma. Halfgestruktureerde onderhoude is uitgevoer met dertien intermediere fase primêre-skool onderwysers by sewe primêre skole in Philippi, Kaapstad. Hierdie studie het bewys dat onderwysers bewus is daarvan dat hulle deel vorm van ingewikkelde stelsels. Hulle het te kenne gegee dat hulle dit moeilik vind om MIV/VIGS opvoeding te gee in die klaskamer, veral as gevolg van kulturele taboes.

Hierdie studie het ook bewys dat onderwysers se interaksie, veral met mense wat met MIV/VIGS saamleef, hulle kennis van en houding teenoor MIV/VIGS, en die onderrig daarvan, verander het. Dit het ook die verskil tussen onderwysers se godsdienstige oortuigings en houdings uitgewys wanneer hulle in kontak kom met mense wat met MIV/VIGS saamleef. Sommige onderwysers het hulle godsdienstige oortuigings gebruik wanneer hulle met die MIV/VIGS pandemie gewerk het. Sommige onderwyseresse veral, het gevind dat ongelyke geslagsrolle en verwagtinge ten opsigte van seks en seksualiteit in hulle gemeenskappe ‘n direkte invloed gehad het op die verspreiding van MIV/VIGS en veilige sekspraktyke in hulle gemeenskappe. Onderwysers was aktief betrokke by stelsels wat ‘n invloed op hulle gehad het, veral die Makrostelsel van die Onderwysdepartement (in hierdie geval die Wes-Kaap), en die Mikrostelsels van die samelewings en gemeenskappe waar die skole hulself bevind.

In opsomming, het hierdie studie bewys hoedat ‘n kontekstuele, stelsel-verwante benadering tot onderwysers in die klaskamer in verhouding staan met kennis en houdings teenoor MIV/VIGS. Sulke komplekse en onderlinge

verhoudings kan nie deur onderwysers, beleidmakers, materiële ontwikkelaars en afrigters geïgnoreer word nie. Verdere navorsing en studies sal vir ons ‘n meer effektiewe model bied van die uitdagings en geleenthede wat onderwysers in die gesig staar en wat sal help om die pandemie hok te slaan.

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1 CHAPTER ONE

CONTEXT AND RATIONALE OF THE STUDY

1.1 Background to the Problem and Context of Study

Every year many people die of Acquired Immune Deficiency Syndrome (AIDS), and the number living with Human Immunodeficiency Virus (HIV) continues to rise. While the HIV and AIDS pandemic is a global health issue that threatens to erode advances in health and development, it is especially acute in Sub-Saharan Africa where over 60% of all persons living with HIV and AIDS reside (Kachingwe et al., 2005, p. 1). In South Africa alone, 10.6 % of all South Africans over the age of two years were living with HIV and AIDS in 2008 (Setswe & Malope, 2009). According to Breidlid (2009) the virus is unevenly distributed among the various population groups in South Africa and is most prevalent among the black population. Statistics by AVERT (Setswe & Malope, 2009; South Africa: HIV & AIDS statistics 2009), concurs and places HIV and AIDS prevalence highest among the Black population group at 13.6%. As the focus of this study is located in a predominantly black community these statistics are highly significant. Moreover, according to Chirambo (2008, as cited in Breidlid, 2009) the prevalence rate among black people is on the incline while decreasing among other population groups.

The significance of such projections highlights the magnitude of the problem and the challenges governments face in combating the disease while, at the same time, providing support for those infected and affected by HIV and AIDS. Governments and health planners have been hard pressed to find adequate ways of containing the spread of the virus.

While we are over twenty years into the pandemic, science has not as yet developed a preventative vaccine against the HIV and AIDS disease. Currently, the main mechanisms for dealing with HIV and AIDS and its spread have been a balanced approach of prevention and antiretroviral treatments. Prevention strategies have included, among others, policy development, involvement of mass media (newspapers, radio, television programmes like

Love-Life), peer education and the free distribution of condoms (Fox, Oyosi, & Parker, 2002).

Education is one of the most effective strategies that has been identified to combat the spread of this virus. According to Coombe (2000) the HIV and AIDS pandemic is much more than a health problem or a medical concern: it is also a social problem that needs to be recognised as such by the education sector. According to Peter Piot, director of The Joint United Nations Programme on HIV and AIDS (UNAIDS): “without education AIDS will continue its rampant spread. With AIDS out of control, education will be out of reach” (cited in James, Reddy, Ruiter, McCauley, & Van der Borne, 2006). Education might be as Kellly (2000) suggests the “vaccine” for HIV and AIDS. According to the World Bank “education offers a ready-made infrastructure for delivering HIV and AIDS prevention efforts to a large number of uninfected population” (“HIV and AIDS and Education", 2001). .

In particular, school-based HIV prevention has been strongly recommended as a major strategy for increasing knowledge and prevention behaviours among children (Siegel et al. (1995) as cited in Peltzer & Promtussananon, 2003). Internationally, many countries have adopted this approach including countries in Sub-Saharan Africa like Zambia and South Africa. Within South Africa, for example, the education policy documents place emphasis on providing learners with accurate information about HIV and AIDS as well as ensuring that they are taught about sexuality in the Life Orientation learning programme (one of the eight learning areas that are part of the revised national curriculum, 2005). HIV and AIDS has been included in the life skills curriculum in primary as well as secondary schools. Furthermore teachers have access to a wide range of teaching materials that provide relevant information on HIV and AIDS. Education departments have also embarked on training life skills teachers. According to Peltzer (2003) about 10 000 teachers in South Africa were trained in 1997 to teach life skills programmes in schools. In the Western Cape, for example, the local Western Cape Education Department (WCED) has established HIV and AIDS units linked to the Education and Management District Centres (EMDC) to provide HIV and AIDS support and materials to all primary and secondary schools.

The expectation from these measures is that teachers trained and skilled to teach HIV and AIDS will mediate/facilitate this information to the learners. The learners in turn, armed with the relevant knowledge, will be able to make informed decisions around their sexual choices. This in turn aims to lessen the infection rate and thereby reduce the impact of the HIV and AIDS virus over time.

Schools are familiar spaces that are often located within the communities they service. The hours of operation and *modus operandi* of local schools are familiar to the parents and these institutions have easy access to learners. Logically, these facilities seem to be the natural location where the transmission of information to learners can happen. Many researchers have also supported this particular emphasis on schools and education as sites for conveying the messages of safer sex and prevention of HIV and AIDS. Yazdi et al. (2006) elaborated on some commonly held perspectives around using schools as sites for HIV and AIDS education. Firstly, schools are recognised as useful settings to conduct HIV-intervention programmes as they provide an existing community infrastructure. Secondly, primary schools in particular, are able to reach a sizeable target population before they develop their sexual habits. Both the Ministry of Zambia (2003) and Shisana et al. (2005) support this view, and recognise schools as centres with “a ready audience” and therefore an ideal place to educate youth about HIV and AIDS. Walters and Whiteside (as cited in Fox et al., 2002) propose that “nowhere else does such an opportunity exist to counter the attitudinal and physical threat of the pandemic”.

The focus on education also makes sense from an economic perspective. According to Vandermootle and Delamonica (as cited in Visser, 2004) there is a strong inverse relationship between vulnerability to diseases such as HIV and malaria and level of education. Boler, Adoss, Ibrahim, and Shaw (2003) infer from their study that teachers and schools play a key role in educating young children about HIV and AIDS; both children and their parents view the school as a trustworthy place.

According to James-Traore, Finger, Ruland, and Savariaud (2004) and The United States Agency for International Development (USAID) (Woods, 2004) primary schools in particular are logical places for HIV and AIDS education, as most youth attend school at least for primary education (Boler, Adoss, Ibrahim, & Shaw, 2003). Primary schools, therefore, have the opportunity to reach many children who do not go on to secondary school. Thus any HIV and AIDS education programme has the likelihood of reaching the maximum number of young people in primary schools. In Tanzania, for example, while the majority of children enrol in primary school, less that 15% continue on to secondary school (Knut-Inge, Ndeki, Leshabari, J., & Lyimo, 1997). In this context it makes sense therefore to target primary schools. Visser (2004) concurs that targeting schools makes sense as children between the ages of 5-14 have the lowest HIV prevalence rate of all the population groups. This means that forming and/or changing the attitudes, skills and behaviour of this group can have a potential positive payoff (Visser, 2004).

Logically, the sensible thing would be for governments to focus their prevention strategies and spend their resources in primary schools. Another reason for focusing on primary schools is offered by the research findings of the United States Agency for International Development (USAID). According to a study conducted by USAID (Woods, 2004) on life skills for HIV and AIDS education in Africa, a life skills curriculum should be introduced early in primary schools, as HIV prevention is more effective among youth who are not yet sexually active. According to this report it is easier to encourage the formation of healthy reproductive attitudes and practices before the initiation of sexual activity than it is to change well-established unhealthy habits (UNAIDS, 1997 as cited in Visser, 2004). This view implies that primary school learners are generally not sexually active and usually make their sexual debut later (Knut-Inge et al., 1997; Fox et al., 2002). However the Community Information Empowerment and Transparency unit (CIET) (cited in Naran, 2005) points to the fact that more and more children are becoming sexually active at a younger age. Also, a recent study undertaken in Tanzania reported that a substantial proportion of students in grades 5-7 in primary school were sexually active (Knut-Inge et al., 1997). Further, the report

compiled by Fox, Oyosi, and Parker (2002) recognises that the sexual debut age in some areas is below age 12 years, particularly in rural communities. According to the findings of a survey conducted by the Community Information Empowerment and Transparency unit (CIET) one out of every three children age 10 years is having sex (Knut-Inge et al., 1997; Naran, 2005).

There are further reasons for directing HIV and AIDS education at the very young. Humm & Kunreuther (1991, as cited in Roderick-Althans & Bhavnagri, 1996) state that “denial is a primary defence mechanism against health threats and adolescents perceive AIDS to be someone else’s disease and tend to underestimate their vulnerability”. So while many adolescents may already be sexually active with attitudes around many issues being crystallised primarily during the teen years, it may be wiser to educate them when they are still pre-teens, and more receptive to HIV and AIDS education.

1.2 Problem Statement

While the argument about the positioning of schools as obvious spaces for learning about reproductive health, safer sex and HIV and AIDS is compelling, it is based on certain assumptions that lead to fundamental questions around teachers and schooling.

Through the use of in-depth, semi-structured interviews with intermediate-phase primary school teachers from primary schools in the Philippi school district of the Western Cape, I attempted to understand teachers’ knowledge and attitudes around HIV and AIDS and what factors shape them. As knowledge shapes one’s attitude towards something, it was important to acquire an indication of the knowledge of HIV and AIDS that teachers should have. The main problem statement of this research was: What factors influence intermediate-phase primary school teachers’ knowledge and attitudes, and in turn, their teaching of HIV and AIDS in the classroom. As HIV and AIDS is a disease mainly spread through unprotected sex in the South African context, any discussion of it necessarily invokes issues of sex, sexuality and disease (Breidlid, 2006).

I began by asking questions about who the teachers are, where they come from, their educational backgrounds, their personal experiences around HIV and AIDS and where they obtained their knowledge around HIV and AIDS. This was followed by a set of knowledge questions. The purpose was to ascertain the level of factual knowledge about HIV and AIDS that intermediate phase primary school teachers have, particularly as they are expected to teach HIV and AIDS as part of the curriculum. Thereafter, I posed questions on their attitudes around HIV and AIDS and how they viewed their role as mediators of HIV information, skills and knowledge. Thus, in addition to the main problem statement there were a number of sub-questions:

- What knowledge of HIV and AIDS do teachers have?
- Where and how did teachers acquire their knowledge of sexuality and HIV and AIDS?
- What and how do they mediate this knowledge to the learners?
- What are their personal experiences with HIV and AIDS?
- What are their attitudes (beliefs, feelings and behaviour) around HIV and AIDS?
- What factors (social and cultural) shape their understanding, feelings, beliefs and responses to sexuality and HIV and AIDS?
- In what way (if any) does knowledge of HIV and AIDS shape attitudes?
- What do teachers believe is expected from them in the teaching of HIV and AIDS? What do they decide to mediate to the learners? What factors contribute to this decision?

1.3 Aims and Objectives of the Study

Among the wide plethora of research on HIV and AIDS, teachers seem to rarely focus as the subjects of research, particularly in qualitative studies (Visser, 2004). Far fewer studies have specifically examined what and how teachers feel and believe about the HIV and AIDS pandemic. Most studies around HIV and AIDS in schools seem to focus on the psychosocial impact of the pandemic (Hepburn, 2001), delivery of teacher development programmes and their effectiveness, intervention programmes implemented and other

preventative strategies. There is also research on the catastrophic effects of the pandemic on the teaching profession. This has been directed at the loss of experienced and trained teachers (teachers dying or too sick to work) due to the pandemic and the corresponding impact it has on remaining teaching staff who shoulder the extra workload (Boler & Carroll, 2003; Woods, 2004). While a number of studies have focussed on the knowledge and attitudes towards HIV and AIDS of various groups like adolescents, university students, medical staff, in-service teachers, these studies have mainly been conducted within the quantitative paradigm and outside the South African context (Dawson, Chunis, Smith, & Carboni, 2001). Hence, research results highlight the percentages of subjects that have adequate knowledge and attitudes. So far, most quantitative studies have typically focussed on cataloguing teachers' knowledge and attitudes without relating them to the systems context within which teachers practice. Furthermore, Baxen and Breidlid (2009a) suggest that little has been done in terms of understanding teachers as subjects and how this impacts on their mediation of HIV and AIDS to the learners. Given the fact that their knowledge of, and attitudes towards HIV and AIDS will invariably influence the way they engage with the topic themselves and with their learners, this constitutes an important field of research. The paucity of literature in this area led me to examine how intermediate-phase primary school teachers in the General Education and Training Band (GET) understand and experience their roles as mediators of information on sexuality and other HIV and AIDS related issues, and in turn how their personal experiences of HIV and AIDS impact on their lives and work.

This study, therefore, attempts to understand teachers within a particular social context using the Bio-Ecological systems model of Bronfenbrenner (1977). The assumption is that while teachers are strategically positioned to mediate information that might lead to increased knowledge about HIV and AIDS and other preventative measures, their prior experiences, knowledge and attitudes impact on delivery in the the classroom and the broader school context. This model provides the framework for understanding teachers within all influencing systems, given that teachers make choices in terms of what they are going to teach and how they are going to teach it. And these choices

are shaped by their social context, knowledge and attitudes. In other words, what teachers teach is influenced by the school, the education department, the community and the broader society. This approach also questions the construction of teachers as compliant messengers who merely regurgitate a body of sanitised information handed to them.

1.4 Theoretical Approach

In this section I anticipate/lay the ground work for Chapter Two with a review of the theory that frames this study and the research findings. This theory - Bio-Ecological systems model of Bronfenbrenner (Bronfenbrenner, 1977) - developed out of queries generated from the main question. Through the questions outlined above, I attempt to understand teachers' social interactions within their contexts that influence their knowledge, attitudes and teaching around HIV and AIDS. This focus also directed me towards how teachers construct HIV and AIDS knowledge and attitudes.

The Bio-Ecological systems model offered me the opportunity to understand how social and cultural practices shape lives and experiences. It also provided a framework or lens from which to understand who teachers are and how they come to hold particular attitudes, knowledge, views, beliefs and values about themselves as individuals. Further, this model helps us to understand how teachers perceive the impact of HIV and AIDS on their lives. Together with the constructivist approach (on the construction of knowledge) it provides insight into how teachers, in turn, frame their understandings and attitudes around the HIV and AIDS pandemic.

There are other approaches to understanding the role of the teacher in the context of their schools and HIV and AIDS. Feminist Theory, Identity Theory, Planned Behaviour Theory and Attitude Formation (Visser, 2004; Baxen, 2006) also offer a scope from which to understand subject formation and identity, but this particular study is confined to the approach that assumes a link between the teacher (adult) and their environment (context) absent in other research studies.

1.5 Research Methodology

I used a qualitative research approach in my attempt to access and interpret the teacher participants' knowledge and attitudes towards HIV and AIDS education. The goal of qualitative research is defined as "describing and understanding rather than the explanation and prediction of human behaviour" (Babbie et al., 2001). The strength of qualitative research of teachers as subjects lies in the possibility of an in-depth study of their knowledge and attitudes towards HIV and AIDS. This approach is also useful as it allows for exploration of the teachers' perspectives within the Philippi community and is ideally suited to the central question posed by this research, namely, *What influences teachers' knowledge and attitudes around HIV and AIDS in schools?*

The teachers were identified through purposive and convenience sampling from the Philippi community. In purposive sampling, researchers select the case based on their judgment of its appropriateness to fulfilling the needs of the study (De Vos, Strydom, Fouche, & Delport, 2005). In my study all the intermediate phase teachers from the Phillipi schools under the jurisdiction of the Metropole South Education Management District Centre were identified as an appropriate sample and invited to participate in this study.

Multiple case studies were employed for data collection. The use of multiple methods of data collection is important as it allows for some form of verification and reliability in the data. According to Mouton (2001), a researcher employs different methods of data collection, such as interviewing and document checking, to validate findings. Fraenkel and Wallen (1993) suggest that reliability and validity can also be enhanced by the use of multiple case studies and multiple interviews with participants. For this study I interviewed 13 intermediate-phase primary school teachers from seven schools in the Philippi district in Cape Town. The transcripts of the individual interviews, my reflections and field notes constituted the data. Embedded within the semi-structured interview is a set of five knowledge questions to assess the teacher's knowledge of HIV and AIDS. These questions are based

on the National Education Policy Act (no 27 of 1996) that stipulates the roles and responsibilities of teachers in HIV and AIDS (Section 2.5).

As part of my ethical responsibility this research was carried out in accordance with the guidelines of the Health Professionals' Council of South Africa (HPCSA), and the ethical requirements of Stellenbosch University. Ethical clearance for this study was obtained from the University (Reference number 122/2008 – See Appendix E).

Informed consent was obtained from the Western Cape Department of Education, the principals of both schools as well as from the individual participants involved in the interviews (Appendix B, C & D).

Before participation, I explained the goals of the research and plans for feedback on the research project to all the participants. The rights and responsibilities of all role players were also discussed with the participants. Participants were briefed about the research process in which they were engaging and informed that all names will be rendered anonymous to protect confidentiality. All participants were asked to sign the informed consent forms upon expressing willingness to participate in the research.

1.6 Definition of Terms

In this study certain terminology and definitions were adopted that require some brief clarification and definition. Some of the terminology introduced here will however be discussed in more depth in Chapter 2.

1.6.1 Knowledge

The *Concise Oxford Dictionary* (Allen, Fowler, & Fowler, 1990) gives three definitions of knowledge:

- "expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject"
- "the sum of what is known in a particular field or in total"
- "awareness or familiarity gained by experience of a fact or situation"

All three meanings provide clarity of the term knowledge as it is used in this study.

1.6.2 Attitudes

According to the ABC (Affect, Behaviour, Cognition) model, attitudes consist of three components: the way we feel, think and behave towards an object, person or idea (Fazio & Olson, 2003, p. 139).

1.6.3 HIV and AIDS

HIV or Human Immuno-Deficiency Virus is a virus that is transmitted from person to person through the exchange of body fluids such as blood, semen, breast milk and vaginal secretions. AIDS or Acquired Immune Deficiency Syndrome is the final and most serious stage of the disease (Winkler, 2004; Cichocki, 2009).

1.6.4 Support

For the purpose of this study support is used broadly to refer to any kind of assistance that the teachers identify as a need. This can be technical, emotional or both.

1.6.5 Education bands in South Africa

In South Africa education is divided into various bands. These include:

- The General Education and Training Band (GET). This term refers to schooling up to Grade 9 in mainstream education.
- Further Education and Training (FET). This term refers to schooling from Grade 10-12.
- Higher Education and Training (HET). This term refers to education beyond the FET phase.

This particular study is located in the general Education and Training Band commonly referred to as GET (“South Africa: System Summary”, 2009) .

1.6.6 Intermediate-phase primary school teachers

Within the GET band, teachers who teach Grades 4-6/7 in primary schools are referred to as intermediate-phase primary school teachers. Generally, children between the ages of 9/10-13 years are in classrooms in the intermediate-phase ("South Africa: System Summary", 2009).

1.7 Structure of the Thesis

- Chapter 1 provides a short orientation of what to expect in the following chapters. In this chapter the context and rationale of the study are described. This is followed by an overview of the theoretical background and research methodology used.
- I review the theory (Bio-Ecological systems model) relevant to this particular study in Chapter 2. I also provide a critical review of the relevant literature available on the subject of teachers' knowledge and attitudes around HIV and AIDS.
- Chapter 3 describes the research methodology. The research approach is described in detail. It defines the focus of the research. In addition, a justification is given for the use of the qualitative approach and certain data collection methods. I also discuss how I met the demands of ethical research.
- Research results are presented in Chapter 4. The participants in the study are introduced and their voices are explored in detail. The findings and responses of dominant themes and sub- themes are presented. This is followed by interpretive comments, linked to my observations and relevant literature.
- An evaluation is presented in Chapter 5. Key findings of the research are summarised. Suggestions for further research, based on findings are also given. The chapter adds to the ongoing conversation about primary school teachers' knowledge and views around HIV and AIDS, and the support they need based on this research context to effectively teach HIV and AIDS prevention. Limitations in the study are also explored. Finally, I provide recommendations and suggestions that might prove beneficial to curriculum and material developers as

well as teachers in their efforts to prevent the spread of HIV and AIDS among our youth.

1.8 Conclusion

In this chapter, the problem was contextualised and I outlined the direction this research project will take. The reader was introduced to the need for understanding intermediate phase primary school teachers' knowledge and attitudes around HIV and AIDS and the objectives, research questions and theoretical framework adopted in this study were highlighted. The chapter ended with a brief definition of the terminology used in this research project. The next chapter follows with a discussion of the theoretical framework adopted in this research project and a review of relevant literature on teachers' knowledge and attitudes around HIV and AIDS.

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2 CHAPTER TWO

THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

2.1 Introduction

The purpose of this chapter is to provide a framework for understanding and assessing intermediate-phase primary school teachers' knowledge and attitudes around HIV and AIDS. In order to do so, I have chosen the Bio-Ecological Systems theory of Bronfenbrenner (Bronfenbrenner, 1977). This framework allows us to understand teachers, and how they view their teaching of HIV and AIDS within the school community.

I begin the chapter by introducing the Bio-Ecological Systems theory. This is followed by a discussion of knowledge and attitudes to prepare the groundwork for understanding teachers' knowledge of HIV and AIDS and their teaching tasks within the school and community. Thereafter, a discussion of HIV and AIDS within a Bio-Ecological Systems theory follows. Teachers' tasks are then highlighted to understand policy expectations and demands placed on them as significant disseminators of HIV and AIDS information. Section 2.6 follows with a survey of the literature that charts the extent and value of the relevant research on teachers' perception of their roles in schools, and their knowledge and attitudes relating to the HIV and AIDS pandemic. This highlights the paucity of qualitative research on HIV and AIDS where intermediate phase teachers are the subjects. A conclusion closes the chapter.

2.2 The Bio- Ecological Systems Theory

Teachers as individuals belong to families, communities and particular social and economic contexts. When attempting to understand their attitudes and knowledge concerning HIV and AIDS it is difficult to extricate this from their contexts. In other words, it is difficult to separate their knowledge and attitudes from their particular surroundings. One approach to understanding

individuals in relation to their social context is the systems approach. A good example of this is the Bio-Ecological Systems model as propagated by Bronfenbrenner (Swart & Pettipher, 2005). The model has had a major influence in understanding families and schools, as well as the relationship between them and their social contexts. According to Richard M. Lerner (2004, as cited in Bronfenbrenner, 2004), the director of the Institute for Applied Research in Youth Development at Tufts University: “Bronfenbrenner has himself been the foremost theoretician of human development over the past half-century. His ideas have been the ones that have stood the test of time to represent the fundamental concepts used in all of the developmental systems theories that constitute the cutting-edge modes of human development”. As humans develop over time within certain contexts, this model is appropriate within the framework of this study.

2.2.1 The Bio-Ecological Systems theory

The Bio-Ecological Systems Model was developed by an Urie Bronfenbrenner (1917-2005) a Russian American Developmental psychologist. As a developmental psychologist he became known for developing ecological systems theory where he demarcated four types of nested systems: the Microsystem, Mesosystem, Exosystem and the Macrosystem. He later added a fifth system called the Chronosystem (the evolution of the external systems over time) (Swart & Pettipher, 2005).

A useful way of understanding the model is to think of the nested Russian dolls concept. Using Bronfenbrenner’s terms, the innermost doll can be described as the Microsystem. This includes the family, the school and the peer group where all the individuals are in continuous interaction with one another. The next doll represents the Mesosystem which refers to the relations between the Microsystems. The Exosystem involves links between a social setting in which the individual does not have an active role and the individual's immediate context, which may impact on him/her. This lies between the Mesosystem and Macrosystem and overlaps both. For a child, this can be the parent’s place of work. For example if a parent is fired from work or has had a hard day at work, his/her behaviour or loss of work will

have an impact on the Microsystems of the child vis-à-vis the family. The outermost doll, the Macrosystem refers to all the dominant beliefs and value systems that influence, and can be influenced by, all the other systems (Bronfenbrenner, 1977; Donald, Lazarus, & Lolwana, 2002). It describes the cultural contexts in which individuals live such as developing and industrialised countries and their socioeconomic status, poverty and ethnicity. Development takes place over time and all levels of the systems need to be seen as continuously developing and interacting with one another. This is referred to as the Chronosystem.

The model proposed by Bronfenbrenner comprises the following principles:

- Dynamic balance: Systems try and maintain a balance or equilibrium when adapting to internal and external changes (Swart & Pettipher, 2005).
- Circular causality: Changes in one part of a system or an individual affects other systems and individuals. For example, a child with HIV and AIDS impacts on the classroom, peer group, teacher and the school and these in turn influence the child. This is opposite to the linear cause and effect associated with the medical model (Swart & Pettipher, 2005).
- Reciprocal relationships or synergism: The whole is greater than the sum of its parts. Therefore it is important to encourage interaction and synergism between systems (Swart & Pettipher, 2005).
- Rules: When there is interaction and synergism between various systems then it is critical to have over-riding rules, set by all parties who govern this interaction. These rules serve to organise the interactions and maintain a stable system. For example, in a school partnership with a Non-Government Organisation (NGO) it is important to establish a mutually agreed set of rules (Swart & Pettipher, 2005).

Bronfenbrenner's work attempts to understand how individual development is shaped and influenced by context. According to Jordaan and Jordaan (1989), taking the context into account sheds light on information - it should therefore

be seen as a pre-requisite for the understanding of experiences, behaviour, problems and phenomena- aspects relevant to this research.

The Bio-Ecological Systems Model is concerned with the interaction between the individual and between different levels of the social context (Bronfenbrenner, 1977; Donald et al., 2002). The emphasis is on the interaction between an individual's development and the systems within the social context. These interactions are dynamic and in continuous motion as they are continually developing and interacting with one another as they develop. A key component of this model is that people are active in their own development. According to Jordaan and Jordaan (1989), the way people experience their environment influences the way they act within it, and their actions in turn influence their experience of the environment. Therefore, it is also important to understand the individual in relation to his/her social context. According to Engelbrecht, Green, Naicker, and Engelbrecht (1999), it is difficult to understand the values and actions of individuals including teachers, parents, learners and others, if they are divorced from the social context in which they occur. One has to see how the values in an individual's social context have influenced and shaped him/her and in turn how the individual has shaped the social context. The way the individual perceives his/her circumstances influences the way he/she will respond to his/her human and physical contexts. As in the constructivist perspective, the individual is not a passive recipient in the environment. Instead, the individual is shaped by, and is the shaper of, his/her social context (Donald et al., 2002). There therefore, exists a reciprocal relationship between the individual and his/her environment.

Bronfenbrenner's theory highlights the complexity of the multiple systems that interact and impact on teachers. Thus, when one system experiences change, dissonance or difficulties, it is important to look at the entire network of systems in which the individual functions. Furthermore, his conceptualisation of 'nested' structures enable us to make the claim that the broader environment does influence who we are, what we do and how we understand ourselves.

2.2.2 Teachers within the Bio-Ecological Systems Model

Understanding teachers within Bronfenbrenner's Bio-Ecological model creates the opportunity to explore how teachers, communities, schools, peers and families influence each other. Therefore, it becomes imperative within this context of HIV and AIDS and psychosocial barriers like stigmatisation, death and cultural barriers to understand how teachers perceive their roles as HIV and AIDS educators and how it influences their knowledge and attitudes. Furthermore, there needs to be an awareness of their values, beliefs and the views that may have developed out of their own personal experiences within their communities and the way these beliefs and values impact on what they do, feel and believe around HIV and AIDS in their everyday lives. There also has to be awareness that teachers may be influenced by their personal experiences of HIV and AIDS within their contexts. These experiences in turn can affect their attitudes towards individuals, teachers and children affected and infected by the virus.

2.3 Knowledge within the Bio-Ecological Systems Model

The *Concise Oxford Dictionary* (Allen, Fowler, & Fowler, 1990) gives the following definitions of knowledge. The first meaning given is "expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject". The second is "the sum of what is known in a particular field or in total and the third meaning is given as "awareness or familiarity gained by experience of a fact or situation". Reber, Allen and Reber (2009) supports the definition above by defining knowledge as a "body of information possessed by a person, or by extension, by a group of persons or a culture". He goes on to discuss different forms of knowledge: knowledge by acquaintance, factual knowledge and knowledge procedural. Knowledge by acquaintance refers to knowledge that humans derive via their senses and of which they are directly aware of. Factual knowledge, according to Reber (2009), is what we know. For example, information such as dogs and cats are animals or trees are plants is knowledge that we know as facts. Procedural knowledge refers to our practical knowledge that involves knowing how to do something, such as riding a bike or buckling a shoe.

The definitions above are suited to understanding how teachers acquire, possess and use knowledge in the classroom. Knowledge of HIV and AIDS implies having factual as well as procedural knowledge (information and skills) that is the product of experience and/or education. It is therefore prudent to investigate how knowledge is constructed.

2.3.1 How is knowledge constructed?

The definitions of knowledge above lend themselves to another important paradigm of how teachers relate to knowledge about HIV and AIDS. Instead of being only recipients and disseminators of information, teachers play a central role in the construction of knowledge within the classroom. This particular paradigm of knowledge construction offers us a lens through which we can understand what teachers know and how they engage with this acquired knowledge and attitudes of HIV and AIDS in their schools and classrooms.

Constructivism is an approach to teaching and learning based on the premise that cognition (learning) is the result of “mental construction”. In other words, individuals learn by fitting new information together with what they already know. Constructivists believe that learning is affected by the context in which an idea is taught as well as by an individual’s beliefs and attitudes (Donald, Lazarus, & Peliwe, 2006). It is a learning theory that began with Piaget (1896-1980) and Vygotsky (1896-1934) and is concerned with the process of the development of cognition and the creation of knowledge. Baron and Byrne’s idea of schemas explain how constructivism works. Knowledge and information gained are assimilated and accommodated within existing schemas (Baron & Byrne, 1981). A schema is an outline or preliminary plan that helps to organise and interpret information and can be revised by new information (Freedman, Sears, & Carlsmith, 1981). According to this theory, individuals are actively engaged in their development and are responsible for their development and construction of knowledge. Individuals construct their own knowledge on the basis of interaction with their environment. For example, if we give ten teachers a text and ask them to answer the question “What is a boat?” we are likely to receive definitions that reflect their

experiences of the terms. This shows that the readers understand terms using prior knowledge, attitudes and experiences, thereby making own meanings. This is relevant for this study as it enables us to understand teachers as actively engaging in their knowledge construction of HIV and AIDS and how this active construction shapes their knowledge and attitudes in the classroom.

2.3.2 Teachers' construction of knowledge

In the context of this study, teachers exposed to HIV and AIDS information via workshops and the media will construct their own knowledge and make meaning of this information on the basis of interactions with their prior knowledge and contexts. It is very likely, then, that teachers who have had some direct and personal confrontation with HIV and AIDS, such as having to nurse a family member with the virus, will be influenced in their understanding by experience and prior knowledge. In other words, the teacher's experiences, whether in his/her own family, school or community, will and can affect their understanding of HIV and AIDS. In turn, knowledge about HIV and AIDS and experiences also form part of one's attitudes.

2.4 Attitudes within the Bio-Ecological Systems Model

Within the realm of Social Psychology there seems to be some consensus on what attitudes are. Freedman, Sears, and Carlsmith (Freedman et al., 1981, p. 353) describe attitudes as "a collection of thoughts, beliefs and knowledge (including positive and negative feelings and evaluations) that tend to produce certain behaviours". This definition is supported by Tyson (1987, p. 335) who proposed that if you hold certain beliefs about an object (issue, person or group of people), or have positive or negative feelings about it and tend to behave in certain ways when you come into contact with it, then you have an attitude towards it.

Historically, the ABC (Affect, Behaviour, and Cognition) model has been prominent in the study of attitudes. According to this model, attitudes consist of three components: emotions and feelings; beliefs or opinions and behaviour towards an object, person or idea (Fazio & Olson, 2003, p. 139).

The cognitive component consists of the beliefs an individual has about the attitude object; the affective component consists of the emotional feelings connected with the beliefs; and the behavioural component is usually a verbal indication or action of an individual towards the attitude object (Freedman et al., 1981; Tyson, 1987, p. 336). Hence, in everyday life we are rarely completely neutral to the things, ideas or people around us. Rather, we have feelings and beliefs towards objects and people, which in turn result in behaving/responding in a particular way. What one thinks about a child or an adult who is HIV-positive, or how one behaves and feels about teaching HIV and AIDS, are attitudes.

2.4.1 How attitudes are formed/shaped and developed

Social scientists have provided a number of suggestions about how attitudes are shaped and what influences them. According to Baron, Byrne and Bronscombe (2006), attitudes are acquired from other persons in situations in which we interact with them or simply observe their behaviour. Suggestions involving social learning include, but are not limited to, the stimulus-response terms, classical conditioning and rewards. Doob (1947, as cited in Lindzey & Aronson, 1985), proposes that attitudes are acquired in the same way as other habits, and should be interpretable in stimulus-response terms. This means that pairing a certain stimulus with a positive or negative event/object can shape attitudes. Attitudes could also be acquired through classical conditioning (Lindzey & Aronson, 1985). This is a form of associative learning where, when a stimulus that results in an emotional response is repeated alongside another stimulus that does not cause an emotional response, then the second stimulus also results in the same emotional response (Eagly & Chaiken, 1993). Other investigators have demonstrated that the mere expectation of a reward influences a person's opinion and attitudinal responses to that person (Griffits (1968) as cited in Lindzey & Aronson, 1985).

2.4.2 Why do we form attitudes?

As humans we are rarely neutral to people, groups, objects or ideas around us. We usually have beliefs and feelings towards them and behave in a particular way towards them. So, we form attitudes. Most attitudes are the

result of either direct experience or observational learning from the environment (Baron et al., 2006). They are generally positive or negative views of a person, place or thing. According to Baron et al. (2006), we form attitudes as they enable us to make sense of our social world and prepare us for responding in ways that maintain our attitudes. They colour our perceptions and responses. They also serve a number of other functions including identity, self-esteem, ego-defensive and impression motivation function.

An identity function allows us to express our central values and beliefs. The self-esteem function helps us maintain our feelings of self-esteem. The ego-defensive function allows us to claim more accepting and positive views about a subject or issue so that we are accepted by others. The impression motivation function allows individuals to generate arguments that support their attitudes, which may then be hard to change.

Many factors, such as the social context, can alter the degree to which attitudes and behaviours are related. Research by La Piere (1934, as cited in Baron et al., 2006) found that a sizeable gap may exist between attitudes and behaviour, i.e. what people say and what they actually do can be quite different.

2.4.3 When and why attitudes influence behaviour?

According to Baron et al. (2006), attitudes formed on the basis of direct experience with the object about which we hold a particular attitude can exert a stronger influence on behaviour than ones formed indirectly. Also, those attitudes to which we are committed and have elaborate arguments to support, are more likely to predict our behaviour.

The views of others around us can and do influence our attitudes. For example, we are less likely to reveal our private attitudes when we believe that others in the group hold different views from us. Hence, the belief about what others will think about us influences our attitudes.

There are basic mechanisms through which attitudes shape behaviour. Cognitive dissonance, which is an unpleasant internal state resulting from

discrepancies between attitudes or attitudes and behaviours, tends to produce attitude change. More recent research (Baron et al., 2006) indicates that dissonance produces negative affect (feelings and emotions) and occurs most in situations where we are forced by external factors to say and do things that are inconsistent with our true attitudes.

2.5 HIV and AIDS and the Bio-Ecological Systems Model

HIV and AIDS has had a significant impact on the systems connected to education placing a strain on families, learners, teachers and education departments. This section examines the meaning and implications of HIV and AIDS within this Bio-Ecological Systems Model.

2.5.1 Nature of HIV and AIDS

HIV stands for Human Immuno-Deficiency Virus (HIV). This virus attacks the immune system of the body and destroys a form of white blood cells that protect the body from disease. HIV destroys T cells, which are crucial to the normal functioning of the human immune system. It slowly breaks down the body's ability to defend itself against germs and diseases. When HIV becomes advanced and when the body no longer recovers properly from each illness, one has reached the final stage of HIV infection, called AIDS. AIDS stands for Acquired Immune Deficiency Syndrome (1999; Vaughn, Bos, & Schumm, 2000; Hardman, Drew, & Egan, 2002; Winkler, 2004). It is the final and most serious stage of the disease caused by the human immunodeficiency virus. AIDS symptoms begin when an HIV-positive person presents a 4 Count (also called T cell, a type of immune cell) below 200. AIDS is the final stage of HIV infection and eventually results in death.

Studies of individuals have revealed that most people infected by HIV carry the virus for years before enough damage is done to the immune system for AIDS to develop. According to Vaughn, Bos, and Schumm (2000), HIV progresses through stages. In the latency stage, which can last anywhere from 2 to 10 years, there are no outward symptoms. In the middle stages persistent fevers and infections may occur due to a general weakening of the

immune system and in the final stages of the illness opportunistic infections increase in frequency, generally resulting in death.

2.5.2 Causes

The cause of primary AIDS is infection with the HIV virus, transmitted via infected blood or body fluids. A person can become infected in a number of ways including unprotected sex, especially anal intercourse, sharing needles in drug abuse and receiving contaminated blood products.

Children are infected with HIV in many ways. HIV can be transmitted to an unborn foetus during the prenatal stage of pregnancy, or during the time of birth (perinatal) or in the postnatal phase, through infected breast-milk (Byrom & Katz (1991) as cited in Mastropieri & Scruggs, 2000). According to Kunneke and Orr (2006), the majority of learners below age 13 with HIV infections are the result of HIV being passed from an infected mother to her child during pregnancy. Learners may also become infected as a result of child abuse or rape (Winkler, 2004; Kunneke & Orr, 2006). Winkler (2004) also suggests that societal conditions like silence and cultural taboos around sexuality, multiple partners, the breakdown of family life due to poverty and migrant labour, young people having sex and other forms of violence, allow HIV to spread quickly (Winkler, 2004). According to Kunneke and Orr (2006), a less common form of infection can be through unsafe health and cultural practices which allow direct blood-to-blood or blood-to-mucous membrane contact.

2.5.3 Prevalence

AIDS was first recognised in 1981 and has since become a major worldwide pandemic. Internationally, since the AIDS epidemic began, more than 16 million deaths have been attributed to AIDS. The estimate of worldwide disease prevalence is more than 33 million HIV infections. Ninety-five percent of these cases are in developing countries, generally in sub-Saharan Africa and Southeast Asia (Stop AIDS Project, n.d.). According to the 1998 United Nations Report on HIV and AIDS Human Development in South Africa, it is estimated that almost 25% of the general South African population will be HIV positive by the year 2010 ("Department of Education", 1999). More recent

statistics undertaken by the Human Science Research Council (HSRC) in 2002 on HIV prevalence indicate that 11.4% of South Africa's population age 2 years and older are living with HIV and AIDS. Of these 12.8% are female and 9.5% are male ("First Nationally Representative Survey Results of HIV Prevalence", 2002) .

2.6 Contributing factors

It is well-known that HIV infection causes AIDS, but it is affected by other factors. Conditions such as poverty, stigmatisation, gender violence and inequality provide fertile ground for the virus to flourish ("HIV and AIDS and education", 2007). Although these conditions may not exist within learners, they cause unprecedented threats to their wellbeing and safety. From a Bio-Ecological perspective, many of these factors operate in the Microsystem, Mesosystem and Exosystem of the learner. Thus, even though learners may not be infected by the HIV virus, they cannot escape impact of HIV and AIDS on the interrelated systems that they engage in (Lusk & O'Gara, 2002; Hepburn, 2001). Factors such as stigmatisation, poverty, cultural beliefs and psychosocial issues impact on the systems and will be discussed below.

2.6.1 Stigmatisation

People with HIV and AIDS are often the victims of discrimination and prejudice. Families tend to experience discrimination on various levels, even from people close to them extended family, friends and neighbours. Often they fear losing their friends and family support due to discrimination and prejudices (Pequegnat & Szapocznik, 2000; Winkler, 2004). To protect themselves and their families against this social stigma, they often remain silent about the disease. Remaining silent often means not seeking the treatment and support needed for this illness.

2.6.2 Poverty and underdevelopment

According to Lawson (1997), under-development and poverty play a big role in HIV and AIDS. His research findings show that communities struggling for basic needs like housing, land, water, and employment do not prioritise HIV as a risk factor in their lives. In poor households, HIV-related illness may lead

to economic problems as adults fall ill, cannot work or stay at home to look after the ill child. Often, all available resources are used for treatment. As a household's income and productivity falls, expenses mount. Sick children or adults require good nourishment and that adds to the financial burden. If the parent is ill, children are often forced to seek work and care for the family. This often results in them dropping out of school, cutting short their education and limiting future economic prospects (Lusk, Huffman, & O'Gara, 2000).

2.6.3 Cultural beliefs

Several studies have found that cultural beliefs surrounding HIV and AIDS can lead to children being discriminated against and stigmatised (Singhal & Rogers, 2003; Hepburn, 2001). Certain traditional practices and beliefs in African contexts, like beliefs about AIDS-orphans, food-distribution in the family, inheritance rights and witchcraft beliefs have been found to increase the vulnerability of young children. In some African countries, for example, feeding follows a hierarchy. Food is reserved for adults as a priority, and the remains are then passed from the oldest to the youngest child (Evans (1997) as cited in Lusk & O'Gara, 2002). These and other traditional patterns mean that young children are hardest hit by scarcity of resources.

2.6.4 Psychosocial concerns

Children in families with AIDS are exposed to different levels of psychosocial stress. If infected, their illness may be compounded by the emotional distress and vulnerability due to stigmatisation from family, friends and neighbours. If a parent is ill, they may be affected by the lack of parental love and nurturing. On another level, children may be affected emotionally when a parent dies. In addition to the grief and bereavement, this often leads to children being separated from their siblings and familiar surroundings (Foster et al. as cited in Lusk & O'Gara, 2002).

2.7 Teachers' HIV and AIDS teaching tasks

In most countries in Southern Africa, HIV and AIDS is already included in the education curriculum. In South Africa, the National Education Policy Act, 27 of the Parliament of the Republic of South Africa (Article 23, 1996) and the

Committee on Teacher Education Policy ("Norms and Standards for Educators", 2000) together present a comprehensive and holistic view of the roles and responsibilities of educators including their roles and responsibilities with respect to HIV and AIDS.

The National Education Policy Act (1996) for learners and educators in public schools and students and educators in further education and training institutions states that, among others, a continuing life-skills and HIV and AIDS education programme that is age appropriate must be part of the curriculum implemented at all schools and institutions for all learners, students, educators and other staff members. Furthermore this Act stipulates a number of specific tasks and responsibilities relevant to HIV and AIDS for teachers that include:

- Providing information on HIV and AIDS and developing life-skills necessary for the prevention of HIV transmission;
- Inculcating basic first-aid principles, including how to deal with bleeding, with the necessary safety precautions;
- Emphasising the role of drugs, sexual abuse and violence, and sexually transmitted diseases (STDs) in the transmission of HIV, and empowering learners to deal with these situations;
- Encouraging learners and students to make use of health care, counselling and support services (including services related to reproductive health care and the prevention and treatment of sexually-transmitted diseases) offered by community service organisations and other disciplines;
- Teaching learners and students how to behave towards persons with HIV and AIDS, and raising awareness on prejudice and stereotypes around HIV and AIDS;
- Cultivating and enabling an environment and a culture of non-discrimination towards persons with HIV and AIDS;
- Providing information on appropriate prevention and avoidance measures including;

- Abstinence from sexual intercourse and immorality, the use of condoms, faithfulness to one's partner, obtaining prompt medical treatment for sexually-transmitted diseases and tuberculosis, avoiding traumatic contact with blood, and the application of universal precautions.
- Education and information regarding HIV and AIDS must be given in an accurate and scientific manner and in language and terms that are understandable.
- Informing parents of learners about all life-skills and HIV and AIDS education offered at the school and institution, the learning content and methodology to be used, as well as values that will be imparted. They should be invited to participate in parental guidance sessions and should be made aware of their role as sexuality educators and imparters of values at home.

The COTEP Norms and Standards for Educators (1998) views the educator as "a self-directed professional who is able to consider a range of possibilities, make decisions about which possibility to follow and perform the chosen act competently, but also demonstrates an understanding of the knowledge and thinking which underpins the actions taken and reflects on the actions with a view to adaptation" (Barasa & Mattson, 1998, p. 42). This view suggests that educators are more than technicians who take instructions in the form of syllabi and implement them without much reflection on actions taken. The Norms and Standards for Educators (2000) which replaced the COTEP (1998) outlines seven roles for educators: learning mediator, interpreter and designer of learning programmes and materials, learning area/subject-phase specialist, leader, administrator and manager, scholar-researcher and life-long learner and counsellor tutor.

According to Peltzer and Promtussananon (2003), and James et al. (2006), the South African government has committed itself to the development of several educational polices that seek to address the impact of the HIV and AIDS epidemic on society. To this end, a national life skills programme has been developed in South Africa by the Departments of Health and Education.

The National AIDS Plan provides guidance for impacting on several levels of the HIV and AIDS epidemic (2006). In response, the Western Cape Education Department (WCED) has committed itself to dealing with the pandemic in the following ways:

- Raising awareness of HIV and AIDS
- Disseminating information about HIV and its transmission
- Changing attitudes of young people to inhibit the spread of the epidemic
- Ensuring students and teachers affected by HIV are not discriminated against
- Providing learning support materials and First-Aid Kits (Fenton, 2002).

Further, both the above departments mandate that information about HIV and AIDS and sexuality education be integrated into the curriculum in the Life Skills and Life Orientation learning areas at foundation phase and intermediate/senior phase respectively. In addition, the WCED has advised that approximately ½ hour per week per class be spent on HIV and AIDS teaching and learning. To do this effectively, the training for primary school teachers around HIV and AIDS includes information on policies around HIV and AIDS, statistics of the disease, the exploration of culture, religion and personal values, the bio-medical facts, care and support for those ill with the virus, gender issues related to the virus and strategies in dealing with parents and the community.

As can be seen from the above, the National Policy on HIV and AIDS in South Africa is fairly comprehensive and inclusive in terms of content information, role players in the struggle against the virus, and the introduction of HIV and AIDS into the foundation phase of schooling. The roles of the educator, as outlined in the Norms and Standards (2000), carve a space for educators to engage creatively, critically and actively with their learning materials and the learners. Against this backdrop that highlighted teacher training, curricular requirements for HIV and AIDS and the role of educators specifically related to combating HIV and AIDS , a review of the relevant literature will follow. The purpose of this review is to critically engage with the literature on HIV and

AIDS and identify findings and relevance for this current study that presents the views of intermediate-phase primary school teachers in Cape Town, South Africa (the context of this study) about their understanding of their educational roles. The paucity of literature in this area led me to examine intermediate-phase primary school teachers in the General Education and Training Band; their knowledge and attitudes around HIV and AIDS in their roles as mediators of information on sexuality and other HIV and AIDS related issues. This is examined against the backdrop of the Department of Educations Policies on Norms and Standards (as enumerated in 2000) that highlight the roles of educators in combating HIV and AIDS among others. Further, this study, in turn, also attempts to understand teachers within the Bio-Ecological system and how their personal experiences of HIV impact on their lives and work.

2.8 Survey of Literature on HIV and AIDS Knowledge and Attitudes

So far I have presented a justification for using the Bio-Ecological Systems Model for understanding teachers' knowledge and attitudes towards HIV and AIDS in schools. This section presents a review of relevant studies on knowledge and attitudes around HIV and AIDS. I will begin by directing the discussion towards the importance of qualitative research for understanding how teachers work with knowledge and display attitudes as key role players in the fight against HIV and AIDS. Moreover, it will argue that more studies on teachers, particularly at the intermediate-phase level, need to be undertaken within the holistic and inter-connected Bio-Ecological Systems Model, hence the reason for this study.

2.8.1 Paucity of research

A survey of the literature around points to the sparseness of information particularly with regards to intermediate-phase primary school teachers' understandings of HIV and AIDS. This finding is supported by the Florida Pediatric HIV Instrument (FPHI) and Valimaki, Suominen, and Peate (1998) . Valimaki et al. (1998) point to the contrasting plethora of literature on

knowledge and attitudes around HIV and AIDS in the health care profession especially from a quantitative paradigm.

Only six relevant studies pertaining to teachers' knowledge and attitudes around HIV and AIDS have been identified in this literature search in the southern African region, of which two were in South Africa (Ayo-Yusuf, Naidoo, & Chikte, 2001; Peltzer & Promtussananon, 2003), one in Mozambique ((Visser, 2004) and one in Malawi (Kachingwe et al., 2005).

Considering the extent of the challenge faced by the Southern African region, and the responsibilities expected of teachers in combating HIV and AIDS, it is surprising that more studies have not been conducted. My study on intermediate-phase primary school teachers in the Western-Cape will complement these studies and add to the limited literature on teachers' understanding of HIV and AIDS in schools. Moreover, its unique focus on intermediate-phase (Grades 5, 6 and 7) teachers and on locating teachers in an integrated bio-ecological system, will contribute to the meagre understanding of teachers at the forefront of the HIV and AIDS pandemic in schools.

To complement the limited literature available on primary school teachers' knowledge and attitudes, I have also reviewed research conducted on the knowledge and attitudes of higher-education graduates at South African and international higher education institutions.

2.8.2 Dominance of the quantitative methodology

According to Valimaki et al. (1998) the main focus of research on HIV and AIDS since the 1990s has been on questionnaires as the method of data collection with findings analysed using quantitative analytical methods. Only Visser (Mozambique) and Kachingwe (Malawi) within the Southern African region have employed qualitative methods in their research to understand teachers' knowledge and attitudes. The findings using quantitative methods have been instructive but they point to the need for more qualitative data on knowledge and attitudes. In most studies, questionnaires ask participants to fill in Likert-type questions around knowledge and attitudes. While this

approach does allow one to identify the percentage of correct and similar responses, it limits the opportunity for in-depth analysis and deeper understanding. The Bio-Ecological Systems Model cannot dispense with the use of in-depth interviews. Using this model, this particular study will add a significant corrective.

2.8.3 Teachers' knowledge about HIV and AIDS

Some of the studies discussed in this review examined the knowledge of teachers, particularly the extent of their information on HIV and AIDS, the subjects they taught, and their willingness to transmit HIV and AIDS information. Other studies have pointed to the limitation of accurate knowledge by itself in the combat against the pandemic. This study aims to understand teachers as individuals who shape and are shaped by their contexts as mediators of HIV and AIDS information.

2.8.4 What teachers know

There is difference of opinion on the level of HIV and AIDS knowledge among teachers. Most have found gaps of information and misconceptions, while one study has indicated otherwise. Studies conducted in southern Africa confirmed this knowledge gap (Ayo-Yusuf et al., 2001; Peltzer & Promtussananon, 2003; Kachingwe et al., 2005; James et al., 2006). For example, Peltzer and Promtussananon (2003) investigated secondary school teachers' knowledge and attitudes about HIV and AIDS and their comfort in teaching adolescents about the disease. From this sample of mostly life skills teachers, Peltzer and Promtussananon (2003) found that, while most had the knowledge and ability to teach about HIV and AIDS, 25% did not know that HIV could not be contracted through mosquito bites. For this reason, Peltzer and Promtussananon (2003) proposed that teacher training should include an HIV and AIDS curriculum which would directly address the myths about HIV-transmission.

Dawson, Chunis, Smith, and Carboni (2001) also conducted a quantitative study that highlighted the levels of teachers' knowledge in Massachusetts (USA) around HIV and AIDS. One hundred and fourty one high school

teachers who taught in one of the following disciplines were included in the study: Allied Health, Humanities, Industrial Arts, Math, Science and Special Education. The findings of this study suggest that while teachers stated that they could comfortably answer students' questions about HIV and AIDS, the accuracy of their responses were questionable. For example, more than 40% of special education teachers believed that HIV antibodies could be detected in the bloodstream immediately after infection, and 30% of humanities teachers believed that the virus could live for several days outside the body.

Uwalaka and Matsuo's (2002) study at the University of Nigeria showed similar findings. They found that although subjects had a relatively high level of knowledge, they did not demonstrate a faultless knowledge about AIDS transmission. Further, they found a positive correlation between knowledge and confidence in sexual practice. This suggests that higher knowledge leads to increased confidence in sexual practice. Uwalaka and Matsuo (2002) proposed that HIV and AIDS education should be incorporated as a compulsory subject at university level. Levine and Ross (2002), in their study at the University of Cape Town, uncovered findings similar to Uwalaka and Matsuo (2002) in terms of knowledge gaps and misconceptions around HIV and AIDS. Comments such as "I still have difficulty connecting unprotected sex to the reality of the disease" raised concern about the practices, attitudes and knowledge gaps among this group of participants (Levine and Ross 2002).

Ndegwa et al. (2002) differed in their findings from the studies reviewed so far. They gave full marks to the teachers and students in Kenya for their knowledge levels about HIV and AIDS. The majority of respondents in the study conducted by Ndegwa et al. also indicated knowing someone and having taken care of someone with AIDS. In addition, their study revealed teachers' involvement in activities geared to HIV and AIDS prevention like counselling and general discussions with pupils. It seems that this personal involvement in knowing someone who has HIV and AIDS contributed to greater accuracy in the knowledge about HIV and AIDS. This crucial factor has also been pointed out by Baxen (2006).

Remafedi (1993) investigated the impact of training on school professionals' knowledge, beliefs and behaviours regarding HIV and AIDS and adolescent homosexuality. This study found that individuals who had more training sessions, beyond the introductory sessions, were most knowledgeable and least reliant on families and friends for information. Further, this group was more likely to address homosexuality, use diverse strategies in their teaching and improve the milieu for homosexual students.

2.8.4.1 *The subjects that teachers taught*

Knowledge differences of HIV and AIDS emerged among teachers depending on the subjects they taught. Dawson et al.'s (2001) study found that health teachers possessed a better level of knowledge of HIV and AIDS than teachers in other disciplines. This particular finding was corroborated by Verma, Sureender and Guruswamy (1997) who conducted a qualitative study among students and teachers in the rural areas of Maharashtra, India. Their study found that Science teachers were less inhibited in talking about HIV and AIDS. Further, Verma et al. (1997) also found that teachers of other subjects were of the view that the Science class was the best place to deal with the topic of HIV and AIDS, rather than teaching it throughout the curriculum. A possible reason for this difference may be attributed to the fact that Science teachers study the human reproductive system as part of their teacher training. Hence, the possession of more knowledge makes them less inhibited to teach HIV and AIDS.

2.8.4.2 Gender and location

Having discussed knowledge disparities and misconceptions in relation to curricular issues, gender and geographical location on HIV and AIDS seem to also have an impact. Lal, Vasan, Sankara Sarma, and Thankappan (2000) conducted a study to assess college students' knowledge and attitudes towards AIDS, sexually-transmitted diseases and sexuality in the Thiruvananthapuram district in Kerala, India. Of all the subjects involved in the study, 50% resided in rural areas. The results of their study showed that all the students had heard about HIV and AIDS before the interview, mainly from newspapers and television. Furthermore, they found that female students

were better informed about certain aspects of AIDS. On the one hand, they were better informed than males on the ways in which infections spread and the use of condoms. On the other, more female students did not know that AIDS was incurable and that HIV could be acquired through sexual contact with a “familiar” person.

Particularly striking in Lal et al.’s (2000) research was the lack of knowledge particularly among rural female students regarding the symptoms of common sexually-transmitted diseases, and the associated increased risk of HIV infection. In addition, 80% of the participants did not recognise the benefits of total sexual abstinence in the prevention of HIV infection. Unlike other studies such as Dawson et al. (2001) and Verma et al. (1997), which reported a better knowledge of HIV and AIDS among Science students, this study found no significant difference in knowledge of HIV and AIDS across the various subject streams.

2.8.4.3 *Teachers’ reluctance to teach HIV and AIDS*

Irrespective of their knowledge levels, teachers were not always willing to teach HIV and AIDS for various reasons. Ayo-Yusuf, Naidoo, and Chikte’s (Ayo-Yusuf et al., 2001) study highlighted that 42% of teachers indicated not teaching HIV and AIDS prevention in their classes. Of these, 41.2% felt that pupils were too young. Their findings was supported by James et al. (2006) in Kwazulu-Natal, who found that, of the 11 classes involved in the implementation of an AIDS education programme, only seven (63%) of the teachers conducted the workshops weekly as specified and implemented the programme fully covering all the topics in the curriculum. Given the prevalence of the HIV and AIDS in South Africa, a large number of teachers are not implementing programmes prepared for them.

The review of the studies with respect to teachers’ knowledge of HIV and AIDS highlights a number of barriers that inhibit teachers as HIV and AIDS educators. Lack of accurate information seems to be one of them, as are factors related to the Bio-Eco System in which teachers are involved. None of the studies, with the possible exception of Visser (2004), explore the construction of knowledge around HIV and AIDS in the classroom. Moreover,

their quantitative studies hint at the level at which families, culture, class and geographical location impact upon HIV and AIDS education. My own study will attempt to explore these systemic interactions and implications in greater depth.

2.8.5 Attitudes towards HIV and AIDS (Affect, Behaviour, and Cognition)

In the next section, I review the studies' findings on attitudes of teachers and students towards HIV and AIDS. This section is divided into the components of attitudes as adopted in this study: Affect, Behaviour, and Cognition (See Section 1.1.2).

2.8.5.1 Affect: teachers' morals

Feelings about HIV and AIDS may influence the way one behaves towards an individual who is HIV-positive. The following studies show this link between teachers' feelings towards learners who are HIV-positive. These studies are significant in highlighting how attitudes towards individuals who are HIV-positive can be influenced by different variables. They also articulated the moralistic stand some teachers may take towards students and others who are HIV-positive, and point to the sparseness of information regarding factors that contributed to teachers' moralistic stance.

Dawson et al. (2001) found that when teachers regarded HIV as a non-self inflicted illness, their attitudes were generally positive. Female teachers were found to hold more positive attitudes towards HIV and AIDS than did male teachers. These findings concur with those of Peltzer and Promtussananon (2003). In addition Dawson et al. (2001) found that teachers with more teaching experience held more positive attitudes about HIV and AIDS.

However this is an exception; studies generally show negative feelings towards people with HIV and AIDS. Valimaki et al. (1998) conducted a review of literature relating to the attitudes of health care professionals, students and the general public to HIV and AIDS and people with AIDS. They reported that fears, misperceptions and negative attitudes towards individuals with AIDS are common. For example, their study highlighted the attitudes of high-school

teachers who believed that pupils infected with HIV should not be allowed to attend school. In addition, two-thirds of these teachers said they would not perform resuscitation (Brook (1994) as cited in Valimaki et al., 1998) on pupils believed to be infected with HIV and AIDS.

Feelings towards people with HIV and AIDS were also tainted with a moralistic stance. Individuals were more negative towards a person with HIV and AIDS and homosexuals when HIV infection was related to a promiscuous sexual lifestyle (Redjimi & Lert (1993) as cited in Valimaki et al., 1998). This study was supported in its findings by two other studies conducted by Stinnett, Cruce, and Choate (2004) and Chifunyise, Benoy, and Mukilibi, (2002). Both of these studies revealed that teacher-education students were more negative in their judgements towards HIV-positive persons when the cause of infection was perceived to be a behavioural choice under the control of the individual. Furthermore, they showed that participants reacted negatively when the cause of infection was perceived to be in the control of the HIV-positive individual. They were less blameful and less likely to hold the individual personally responsible if the cause of infection was beyond the control of the individual (Stinnett et al., 2004). The generalisation of these studies is limited however as participants in this study were teacher-education students, not teachers in practice. It is possible that more experienced teachers with accumulated experience would respond differently as is shown in Dawson et al.'s (2001) study.

Some research (Lal et al., 2000) points to the differences in moral attitude between rural and urban students. They found, that attitudes towards AIDS was intermingled with concepts of sexual morality. The majority of students, particularly rural students, believed that AIDS was a consequence of deviation from a "moral" sexual lifestyle.

Research by Levine and Ross (2002) found that university students tended to stigmatise and stereotype those who had the disease. They also believed that 'others' were more vulnerable to HIV and AIDS such as homosexuals, prostitutes, drug addicts and poor black people, especially women.

2.8.5.2 Behaviour: discomfort in talking about HIV and AIDS

Two factors preventing teachers from fulfilling their roles as HIV and AIDS educators in the classrooms have been identified in the study conducted by Verma, Sureender and Guruswamy (1997). According to their findings, the majority of teachers were embarrassed to talk about sex and sexuality. They were also reluctant to have it as part of the school curriculum. As one teacher said: “It is a natural process of growth. They (students-HT) would learn to deal with this by themselves. Everybody has to face it and grow” (Verma et al., 1997, p. 483). Further, many teachers felt that the topic of sex education was very sensitive and required special skills and specific teaching methodology. Visser (2002) corroborated the findings of Verma, Sureender and Guruswamy (1997). In her research, teachers were aware of HIV and AIDS and believed they had an important role in addressing the HIV pandemic; they expressed a willingness to contribute to the prevention of HIV and AIDS by talking to their students in the biology class or by organising a lecture for parents.

However, Dawson et al. (2001) and Verma et al. (1997) found that not all teachers were uncomfortable with the topic of HIV and AIDS. For example, Science teachers in secondary schools appeared to be less inhibited to talk about HIV and AIDS than their counterparts. Neither Dawson et al. (2001) nor Verma et al. (1997) postulate any possible reasons for the difference between the Health and Science teachers on the one hand and teachers from other disciplines other than that exposure to such knowledge in their teacher training led to less inhibitions.

2.8.5.3 Beliefs: cultural barriers

Beliefs are an important component of attitudes. Researchers have identified misconceptions around HIV and AIDS that arise from cultural and religious beliefs. In countries like South Africa and Malawi, the discussion of sexual issues between adults and young people is generally restricted. Among some communities in South Africa even the use of explicit terminology to describe sex organs is regarded as vulgar and offensive. Traditional cultural values prohibit the discussion of sexuality, especially by parents or elders, such as teachers. Studies have pointed to discomfort among teachers with these

beliefs when discussing HIV and AIDS prevention with their students (Kachingwe et al., 2005; Baxen, 2006).

2.9 Summary and Conclusion

In this chapter I have provided justification and support for the Bio-Ecological Systems Model in understanding teachers' knowledge and attitudes, and the challenges faced by them in their engagement with HIV and AIDS. Constructivism has been identified as a useful paradigm for understanding how teachers engage with HIV and AIDS information in their classrooms. The various components, sources and impact of attitudes have also been elaborated on. This was followed by a review of the literature on knowledge and attitudes relating to HIV and AIDS education with a view to presenting empirical studies relevant to my study. Most of the studies discussed, have several limitations. They failed to understand the subjects of their research. The limited research in South Africa attempting to explore the situation for intermediate phase primary school teachers, points to the need for greater depth in understanding teachers' knowledge and attitudes of HIV and AIDS for which the Bio-Ecological Systemic model provides a ready foundation. Hence, in an attempt to fill this void, the current study proposes to analyse the teaching of HIV and AIDS within the discourses mentioned above by viewing them through the lens of a systemic, interpretative paradigm using qualitative data.

Teachers in primary schools in general and in the intermediate-phase in particular are under-represented in the research on HIV and AIDS. While some studies suggest that primary school teachers are well situated to being HIV and AIDS prevention leaders, a number of other studies highlight the considerable support this strategy needs to be effective. In addition, it is important to understand how primary school teachers themselves feel about what they are asked to do and what kind of support they require.

The research regarding teachers as HIV and AIDS prevention leaders has highlighted some contradictions and needs (See section 2.6). The research reviewed can be summarised as follows:

- There appeared to be an obvious inconsistency between the level of responsibility given to teachers and the amount of research devoted to teachers as key players in the fight against HIV and AIDS (See section 2.6.1).
- Teachers in many countries confirm the need for, and have expressed their commitment to, HIV and AIDS prevention in schools (See section 2.6.4)
- With a few exceptions, knowledge disparities, misinformation and misconceptions around HIV and AIDS abound (See section 2.6.3)
- Science teachers in secondary schools appear to have more confidence and better knowledge than teachers of other subjects (See section 2.6.3.1)
- Many teachers simply fail to teach the required HIV and AIDS curriculum to their students (See section 2.6.3.3)
- Teachers lack confidence and express high levels of discomfort in the teaching of HIV and AIDS prevention programmes (See section 2.6.4.1)
- There are gender differences in responding to HIV and AIDS (See section 2.6.3.2 and 2.6.4.1).
- Studies done in countries like Zimbabwe and South Africa have shown that training programmes improve teachers' knowledge and attitudes and prepare them to offer HIV and AIDS prevention programmes in their schools (See section 2.6.3)

The review above shows that few studies have examined teachers as individuals with their own thoughts, feelings and beliefs surrounding HIV and AIDS. Moreover, teachers as distinct personalities with their own histories and contexts have not been explored in detail. Specifically, there has been little consideration given to how individual differences such as knowledge about HIV and AIDS, knowing someone who is affected by HIV and AIDS, and attitudes towards particular aspects of the disease impact on the teachers' approach to dealing with this pandemic.

The nature of the findings reviewed above thus suggests that the constructivist approach and the systems model may constitute a relevant route to understanding teachers' knowledge and attitudes towards HIV and AIDS. Teachers' discussions related to their perception about what is permissible within the context of the community, such as talking about sex and sexuality, are indicative of the influences and pressures of the community impacting their role as disseminators of HIV and AIDS information.

Most of the studies reviewed above conducted their research within the quantitative paradigm with convenience samples. Therefore many of them cannot be generalised beyond the group of teachers studied. In addition, in most studies, questionnaires using Likert type questions around knowledge and attitudes were given out for participants to fill in. While this approach allows one to identify the percentage of correct and similar responses, it limits the opportunity for in-depth analysis and deeper understanding. The present study will collect in-depth individual reflections about how teachers perceive their roles in teaching HIV and AIDS and the systemic factors that impact on their knowledge and attitudes.

3 CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

According to Babbie et al. (2001) and Durrheim (1999), research design is a framework or plan of how one intends to conduct the research process to solve the research problem and ensure that sound conclusions can be drawn. When planning a research study, the research plan must make certain decisions about how best to answer the research questions.

In this chapter I shall review the research design and methodology used to investigate primary school teachers' knowledge and attitudes about HIV and AIDS in their classrooms. A study of this nature required an approach that takes into account the meanings people have constructed for themselves through their experiences. I sought to understand and explore the experiences of the participants from their perspectives. I begin by discussing the research design and methodology followed in this study. A discussion of the sample, location of the study and data collection and analysis follows. In the final section, I outline the ethical considerations adopted for the purpose of this study.

3.2 Research Methodology

Methodology enables us to describe the process and the product of enquiry in a systematic manner (Cohen, Manion, & Morrison, 2000). The type of research questions proposed usually determines the choice of methodology. The main question in this study centred on understanding teachers' knowledge and attitudes towards HIV and AIDS within the Bio-Ecological framework. Since I was interested in examining how this cohort of teachers' experiences influence and shapes their knowledge and attitudes about HIV and AIDS, I followed a qualitative approach. According to De Vos, Strydom, Fouche, and Delport (2005), "(t)he goal of qualitative research is to tell someone else's story from their reality". Babbie et al. (2001) suggests that the goal of qualitative research is to understand and describe rather than to

predict human behaviour. As this study proposed to understand intermediate phase primary school teachers better, a qualitative approach was most appropriate. A qualitative approach for this study creates the opportunity for the participant's voice to be heard. Merriam (1998) further suggests that qualitative researchers are particularly interested in understanding the meaning people have constructed; how people make sense of their world and the experiences they have in the world. According to Green (1998) this is a more holistic approach - a move towards understanding the phenomenon as more than the sum of its parts. It incorporates a process of understanding a social or human problem through building a complex, holistic picture by using the words, gestures and views of informants in naturalistic settings (Creswell, 1998). Denzin and Lincoln (1998, p. 3) also suggest that "qualitative research is multi-method in focus, involving an imperative, naturalistic approach to its subject matter". This approach is relevant to this study, as it allows the researcher to understand the participants' views as expressed by themselves in their contexts.

As mentioned in Chapter 1, an interpretive perspective underpins this qualitative study. This particular paradigm was selected as it allows for a thorough understanding of the experiences, meanings, hopes and aspirations of a particular group of people. It also lends itself to research that is qualitative in nature and is based on fieldwork. Interpretive research also emphasises rich experiential data (Durrheim & Terreblanche, 1999). Within the interpretive framework, the underlying assumption is one of multiple interpretations of reality. Thus, this allows for the researcher to bring the construction of reality to the research context, which interacts with the participants' constructions or interpretations of the phenomenon being studied. It also enables the researcher to take on a more personal and interactive mode of enquiry.

Furthermore, the research question is exploratory in nature and lends itself to inductive reasoning. Inductive reasoning is the process of making inferences based on observed patterns (Patton, 2002). It allows the researcher to move from the specific observations towards a general conclusion, based on observed patterns.

3.3 Site and Sample

3.3.1 Location of study

Philippi, the location of the primary schools in my study, is one of the larger townships/suburbs in Cape Town with an estimated population of 150 000. It is surrounded by Coloured and Black communities established during the apartheid era. It was first founded in the 1980s, along with the townships of Khayalitsha and Delft to house the "Xhosa speaking (Black African)" communities that were not allowed to reside in other areas in Cape Town according to the Group Areas Act No 41 of 1950. The Group Areas Act No 41 of 1950 allowed for the initiation and creation of different residential areas for different races. In this way it forced a physical separation between the different races in South Africa. Implementation of this Act began in 1954 with forced removals of people living in "wrong" areas and the wholesale destruction of communities. Most of the people in Philippi came from the Eastern Cape to find a better life in Cape Town. The people live in poverty and many of the homes are little shacks made from wood, cardboard and corrugated iron. Crime is rife in this area and the AIDS-infection rate is estimated to be around 40% ("About Us: Philippi", 2009).

My study was conducted among eight primary schools in Philippi. These schools also fell under the jurisdiction of the Education and Management District Centre (EMDC) of Metropole South in Mitchells Plain. The EMDC's were established in 2001 in the Western Cape. Their main purpose is to provide multi-disciplinary support to primary and secondary schools (Robinson, 2002).

At the start of this research project I was working at EMDC as an intern educational psychologist. My place of work provided me with a convenient location for my study in terms of accessibility for data collection. Further, the selection of schools in the Philippi district was motivated by the HIV and AIDS unit based at the EMDC, which indicated that a significant amount of resources and support was provided to the Philippi schools. This was considered to be a high risk area for HIV and AIDS according to Nceba

Jalama, the Head of the HIV and AIDS Unit based at the EMDC of Metropole South (Interview with head of EMDC Metropole South HIV and AIDS unit, 2008).

3.3.2 Sample

According to Arkava and Lane (1983, as cited in De Vos et al., 2005) elements of a population that are actually included in a study are referred to as the sample. A “sample” in a research study refers to any group on which information is obtained (Fraenkel & Wallen, 1993, p. 79). The population for this study is the group of intermediate-phase primary school teachers from Philippi primary schools under the jurisdiction of the EMDC Metropole South.

The sampling in this study was purposive as it was most suited for the qualitative nature of this inquiry. Purposive sampling is usually used when the research is focused on a select group of respondents located in a particular context and who are studied in depth. It is also used when the sample size is small, where the focus of enquiry is already determined and where the sample has been chosen for a specific purpose. According to Merriam (1998), purposive sampling is based on the assumption that the researcher wants to understand a phenomenon and must therefore purposefully select a sample from which the most can be learnt. In purposive sampling the researcher selects the cases that will be included in his/her study based on appropriateness for the particular study (Cohen et al., 2000). According to Babbie (1995, p. 287), it is important that the sample yields the most comprehensive understanding of the subject of study. In this way the researcher is able to build a sample that is tailored to his/her specific needs. This sampling technique was suitable because the focus of the study had already been decided. Therefore the focus in this case determined the sample.

The sample in this study consisted of primary school teachers from seven primary schools in Philippi. Participation by teachers was voluntary. As the focus was on intermediate-phase primary school teachers, a request for participation was made only to those teaching Grades 4, 5, 6 and 7 in the selected primary schools.

Within the sample of eleven intermediate-phase primary school teachers, three were male and eight were female. This kind of gender distribution among a primary school teacher group is not uncommon or unusual as intermediate-phase teaching has traditionally been associated with greater female participants and less male involvement. Thus any attempt to get an equal number of male and female participants would have been difficult. This factor, however, did not adversely influence the results of the study, since my aim was to examine teachers' understanding and the experiences that shaped their knowledge and attitudes towards HIV and AIDS. The unit of analysis was the teacher who comprised "the case" rather than gender (see 3.4.1.2 below).

3.4 Data Collection and Analysis

3.4.1 Data collection

As HIV and AIDS is a sensitive issue that legally demands total confidentially, I decided to approach the data collection via the use of a semi-structured interview with each of the eleven participants. According to Babbie (1995, p. 289), the interview is an interaction between the interviewer and respondent where the interviewer has a general plan of inquiry. The inclusion of multiple cases is a common strategy for enhancing the external validity of findings (Merriam, 1998). I conducted in-depth interviews with each of the participants, using the semi-structured questions prepared to guide the interview process (See Appendix A for Research Questions Guide). Field notes also supported the data collection. They provided the space to record my observations and personal reflections during the data collection process and served to verify certain aspects of the interview and so thicken the data.

According to Babbie (1995), some of the special strengths of field research are its flexibility and the presence of an observing, thinking researcher on the scene of the action. Hence, both semi-structured and unstructured interviews are more appropriate in field research. Semi-structured interviews, which in this research lasted between one and one and a half hours, were conducted with each participant. The interviews were recorded and then transcribed verbatim. Further field notes supported the data collection as a tape recorder

cannot capture all the relevant aspects of social processes. Because the nature of data was inductive, some of the teachers were interviewed more than once. Each interview began with general questions to elicit background information from each participant. This was done to gain insight into their lives as a way of understanding the influences shaping their knowledge and attitudes towards HIV and AIDS (See Section 2.3 and 2.4).

3.4.1.1 *Data collection procedures*

A letter requesting permission to conduct research in the schools was written to the Western Cape Education Department (see Appendix B). Once official permission was granted, I visited the respective schools with a representative from the EMDC Metropole South HIV and AIDS-unit. In this introductory session the purpose and outcome of the research was explained to the Principals and Heads of Departments of the respective schools. An invitation to all intermediate-phase teachers was extended and appointments for interviews were made. In some schools, more than one teacher volunteered and was not declined participation. At one school interviews were set up on two occasions, but on arrival the interviewer was informed that the teachers were unavailable. Thus, from the eight primary schools in Philippi aligned to the EMDC Metropole South, one school did not form part of the project. This can be regarded as a limitation to the study but the fact that most schools were represented with some offering multiple participants enabled the researcher to collect rich data within this specific context.

3.4.1.2 Case studies

Within a broad qualitative framework, a case study approach was followed. According to Denzin & Lincoln (Denzin & Lincoln, 1998, p. 204), a case is a "phenomenon of some sort occurring in a bounded context - the unit of analysis, in effect". According to Yin (1989, as cited in Merriam, 1998, p. 27), a case study is an empirical inquiry that "investigates a contemporary phenomenon within its real-life context". In this instance a multiple case study approach was adopted. A multiple case study can be distinguished from a single case in that it involves collecting and analysing data from several cases (Merriam, 1998). The more cases included in the study, the more compelling

an interpretation is likely to be. In this study, 13 teachers constituted the unit of analysis and as such the "case". They, rather than the schools, were the focus of study.

Hitchcock and Hughes (1995, as cited in Cohen et al., 2000, p. 181) suggest that a case study has several hallmarks which are applicable to this research:

- It is concerned with a rich and vivid description of events relevant to the case.
- It blends a description of events with the analysis of them.
- It focuses on individual actors or groups of actors and seeks to understand their perception of events.
- The researcher is integrally involved in the case.
- An attempt is made to portray the richness of the case.

Geertz (1973, as cited in Cohen et al., 2000, p. 182) states that case studies portray what it is like to be in a particular situation, to catch the close-up reality and "thick description" of lived experiences of thoughts about, and feelings for, a situation.

3.4.1.3 Field notes

Field notes were used in this research as a description of what the researcher observed. According to Patton (2002, p. 302), field notes are "the most important determinant of later bringing off a qualitative analysis". For this study, I mainly used field notes to describe the physical setting of the schools, the location of the interviews, my personal reflections and any informal conversations with personnel at the schools.

3.4.1.4 Semi-structured interviews

According to Patton (2002), we interview people to find out from them those things we cannot directly observe like feelings, thoughts and intentions. The purpose of interviewing, then, is to allow us to enter into another person's perspective (Patton, 2002, p. 341). Thus, in an attempt to understand the intermediate-phase primary school teachers' knowledge and attitudes towards HIV and AIDS from their perspective, semi-structured conversations were used in conjunction with a set of structured factual questions. This allowed the

participants an opportunity to express their opinions from their perspectives (Kvale, 1996). The factual questions on HIV and AIDS knowledge were derived from the tasks and roles expected of teachers as outlined in section 2.5.5. The interview guide (see Appendix A) highlighted the main issues to be explored with the participants during the interview process. The advantage of an interview guide is its assurance that the same basic lines of inquiry are pursued with each person interviewed. In this way, it helps to make the process of interviewing more systematic and comprehensive (Patton, 2002) yet, also gives each participant the freedom to portray their own experiences.

I began the interviews with open-ended questions to elicit some biographic information (age, years of working experience, place of study etc), and to create a rapport with each participant. This was followed by questions to elicit their personal experiences around HIV and AIDS, teaching sexuality and attitudes. In this section of the interview process, the participants were given the opportunity to express their opinions and speak about what was important to them about HIV and AIDS teaching. The questions were guided along the following lines: *How do you feel about teaching HIV and AIDS and sexuality? What would you like to see implemented that will support the battle against the pandemic?* The questions were broad in nature in order to allow the participants to select what they felt were important aspects to discuss. The third section of the interview guide consisted of a set of factual knowledge questions that were used with all the participants in exactly the same way. The purpose of this was to ascertain the level of HIV and AIDS factual knowledge among this group of teachers, particularly as they are expected to mediate HIV and AIDS information to their learners.

3.4.2 Analysis of data

There are many different techniques to analyse data according to the research question. Data analysis technique suitable to the interpretive paradigm and qualitative approach was used. Within the qualitative paradigm, data analysis is inductive. The inductive process allows one to begin with some data and compare it with another unit of data looking for connecting themes or patterns across the data (Merriam, 2002). Data analysis can also

begin simultaneously with data production. For example, one can begin analysing with the first interview. According to Patton (2002), this allows the researcher to make adjustments along the way, and if need be, redirect data collection.

The first step of data analysis began with transcribing the interviews. Each interview was read and reread so as to gain familiarity with the participant's responses and personal experiences. According to de Vos et al. (2005, p. 339), data analysis in qualitative research is the process of bringing order, structure and meaning to the mass of collected data. He adds that this process does not proceed in a linear fashion. Through reading and rereading, themes, sub-themes and patterns were identified and analysed in the data, as was the relationship between them.

3.4.3 Verification of the data

As in all research, consideration must be given to validity and reliability. In a qualitative study validity depends largely on the perspective of the researcher. Qualitative researchers, therefore, use a variety of techniques to check their perceptions to ensure they are not being misinformed. Firstly, the use of open-ended interview strategy enables the researcher to compare responses from the various participants and reduces interviewer bias (Fraenkel & Wallen, 1993).

According to Fraenkel and Wallen (1993, p. 400), some of the following procedures could also be used to enhance validity:

- Using a variety of instruments to collect data often referred to as triangulation.
- Checking one informant's description of something against another informant's description of the same thing.
- Recording own thoughts about the observation and interviews.
- Describing the context in which questions are asked and situations are observed.
- Using audiotapes and videotapes when possible and appropriate.
- Interviewing individuals more than once.

In an attempt to increase the validity of information in this type of study, a number of procedures recommended above were implemented in this research process. These included recording the interviews on audiotape, field notes, multiple case studies as well as the use of open-ended interview strategy.

3.5 Ethical Responsibility

Mertens (1998) states that ethical considerations should be integral to the research planning and implementation process. Merriam (1998, p. 212) notes that ethical dilemmas are more likely to occur in qualitative research at two points; during the production of the data, and in the disseminating of information. I was aware that dealing with human subjects and the sensitive topic of HIV and AIDS meant that certain ethical considerations were particularly important. The following three key elements were employed to control ethical concerns in this study:

- Prior to commencement of the study, approval to conduct this research was granted by the Western Cape Education Department (See Appendix B).
- Informed consent was given by the head of the respective schools as well as each individual participant. Their consent was given in writing. Examples of the letters of consent are provided in Appendix C and D.
- Interviews were conducted on the school premises in a private office-space provided by the school.
- Due to the sensitive nature of HIV and AIDS, focus group interviews were avoided.
- Further, to ensure privacy and anonymity, pseudonyms were used in Chapter 4 to denote participants.
- The code of ethics and permission to conduct the study as laid down by Stellenbosch University formed the modus operandi in this research (Reference no: 122/2008).

3.6 Conclusion

In this chapter, I described the research design and methodology followed in the study. This included information about the method of sampling, a description of the sample and sites as well as data production and analysis. Reliability and validity and the procedures used to enhance these aspects were also discussed. The chapter concluded with a discussion of ethical considerations.

In the following chapter, the data collected and analysed will be discussed in detail.

4 CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS: A DISCUSSION OF THE FINDINGS

4.1 Introduction

Teachers as individuals belong to families, communities and particular social and economic contexts as indicated in the Bio-Ecological Systems Model (see section 2.2). In order to understand their attitudes and knowledge it is difficult to extricate them from the inter-locking systems. The literature around HIV and AIDS mentioned in Chapter Two pointed to the broad impact of the HIV and AIDS pandemic on the multiple systems and individuals at different levels. In my quest for a deeper understanding of the teachers' knowledge and attitudes towards HIV and AIDS, I posed the following questions to participants in this study: *Who are they? Where do they come from? What knowledge of HIV and AIDS do they possess? What factors have shaped their knowledge of HIV and AIDS? What in their social environment has had an influence on how they understand HIV and AIDS and their role as teachers of HIV and AIDS knowledge?* Overarching these questions is the theoretical framework of the Bio-Ecological Systems Model that provides the overall design for the project.

Chapter Three described the research design that served as the framework for this study and directed the research process. This chapter now focuses on the presentation of the data collected via the semi-structured interviews and field notes. In this study the data was analysed using a process of analytical induction where meaning was inferred from the data collected (Patton, 2002). Thus whenever a theme or pattern was identified, I went back to the data to confirm or qualify the finding (Huberman & Miles, 1994). The themes were then grouped together using a process of scanning, ordering and reviewing (Huberman & Miles, 1994).

From the 13 transcribed interviews, I selected three interviews to begin the process of identifying themes. I worked with three to make the initial

identification of themes more manageable. A careful reading of this initial sample generated a tentative list of three broad themes. The themes were then identified in the remaining 10 interview transcriptions and research notes. In this way, a stable set of themes was produced.

Three broad themes with several sub-themes have been identified. The first presents background information on the teachers interviewed with a view to understanding who they are, where they come from and where they obtain their knowledge of HIV and AIDS. Thus, I begin with the personal background of the teachers; sketching their homes, families, cultural and educational backgrounds. This personal background also introduces at once the Bio-Ecological Systems perspective, particularly the Microsystems within which teachers operate (Section 4.2). This is followed by Sections 4.3 that presents the factual knowledge and attitudes that teachers have acquired on HIV and AIDS. Their responses to specific questions in the interviews (Appendix A, Question 3) were identified and analysed. Section 4.4 introduces the third broad theme that views teachers' knowledge and attitudes within the Bio-Ecological Model. From this perspective, teachers are found to be connected to multiple systems and to interact between them. They find themselves in Microsystems (families, communities, schools, peers), Exosystems (Education Departments), and Macrosystems (class, race and culture). These themes and sub-themes have been identified to illustrate how the Bio-Ecological Model enables us to understand the challenge of teachers in combating the HIV and AIDS pandemic from within the education context, yet also linked to several systems beyond this.

4.2 Theme 1: Profiles of Teachers

This section provides the backdrop for understanding the participants of this study. Hence it focused on who the teachers are, where they come from, where they obtain their HIV and AIDS knowledge and information and what information around HIV and AIDS they receive. These findings are based on responses to questions posed to the teachers (Appendix A, Question 1). Most of the studies reviewed using quantitative methodologies (sections 2.6.3 and 2.6.4) did not attempt to understand the participants of their studies. However,

within the frame of the Bio-Ecological Systems model, teachers as individuals belong to families, communities and particular social and economic contexts. Thus in order to understand their knowledge and attitudes towards HIV and AIDS it is important to understand their contexts.

4.2.1 Biographical details

Thirteen teachers from seven primary schools in Philippi, Cape Town, volunteered to participate in this study. Of the thirteen intermediate-phase primary school teachers, three males and 10 females made up the sample. The average age of the group was 40 and the average level of teaching experience was 10 years. All the teachers in this study attended racially-segregated primary and high schools in the Eastern Cape and Cape Town during their formative years. Of the group of 13, only one person indicated no previous teacher training. From the remaining group of twelve participants, ten had successfully completed a three-year teachers' diploma and the remaining two participants had obtained an initial degree in education. The majority of the teachers (11) trained in institutions designed either for Blacks or Coloureds. Linda (names have been changed for reasons of confidentiality) was the only Black teacher from the group who completed her degree at a historically-White university in the Western Cape. As she explained: "*I was one of those who went back to school. I was working ordinarily (with no qualification in education) and went back to get a degree".*

4.2.2 Family and home

Twelve of the thirteen participants had two or three children and six of them described themselves as being single parents living with extended family. All taught Grades 4, 5, 6 or 7. The three male teachers in this study taught grades 6 and 7.

In response to questions about their parents' careers or work, the majority of the teachers explained that their parents worked for other families as domestic workers, gardeners etc. For most of the participants, this meant growing up in homes with a single parent, an absent father, sometimes in the absence of both parents, or under the guardianship of another family member

(80%). In most cases, the grandmother was cited as the caregiver or guardian. Thus grandmothers, siblings and extended family (i.e. Microsystems) played a significant role in their lives, indicating the interplay of various systems.

4.2.3 Education about HIV and AIDS

None of the 13 participants involved in this study recalled receiving any HIV and AIDS training during their studies at the various teacher-training colleges or university. All the teachers interviewed were in teaching posts for at least three to five years before attending their first workshop on HIV and AIDS. They obtained their training from the Western Cape Department of Education's HIV and AIDS Unit based at the EMDC's within the last four years. One female participant, however, indicated first receiving training via a church group within which she was involved.

In a discussion about the training programme offered by the EMDC, participants mentioned attending HIV and AIDS training sessions over two weekends. They recalled receiving mostly factual information about HIV and AIDS, including the identification and transmission of the disease. At the same time, gender and sexuality were briefly discussed. For most of the participants, their last training session on HIV and AIDS was at least two years prior to this interview.

4.3 Theme 2: Knowledge and Attitudes Acquired on HIV and AIDS

In this section, the findings of the teachers' knowledge and attitudes on HIV and AIDS are presented. These findings are based on responses to specific, factual questions posed to the teachers (Appendix A, Question 3). They elicited what knowledge they had acquired in HIV and AIDS training modules and programmes presented by the Western Cape Department of Education and other Civic Bodies. These findings are not very different from what others have discovered using quantitative methodologies (Chapter Two Sections 2.6.3 and 2.6.4). It is important to understand in this discussion that

knowledge, feelings, beliefs and behaviours cannot easily be separated from each other.

4.3.1 On knowledge

On knowledge questions, teachers presented almost-perfect answers. They showed a good understanding of HIV and AIDS, its transmission and prevention. The teachers (N=13) were asked a set of five knowledge questions related to HIV and AIDS. The questions were formulated using the information provided by the Department of Education Document that highlighted what primary school teachers are expected to know/teach regarding the HIV and AIDS virus (section 2.5.5). These same five questions were posed to all 13 participants in this study.

The overall HIV and AIDS knowledge level of the teachers in my sample group (N=13) was excellent (93%). In response to 65 questions, only 6% of the answers were incorrect. Of the 65 responses from the 13 teachers on the five knowledge questions, two of the teachers indicated not knowing the answer to the question *If an HIV positive person has a CD4 Count of 200 or less, what does this mean?.* This finding contradicts most previous research that reported that many misconceptions, disparity in knowledge as well as the misinformation around HIV and AIDS knowledge existed among teachers (See Chapter 2, section 2.6.3). A possible reason for this difference could be attributed to the small sample size of this particular study. Some of the other correct responses included: *it means that they are very sick; they need to start taking ARV's* (Antiretrovirals-HT). Similarly, in response to the question on whether the virus can function for days outside the human body, two of the participants incorrectly believed that the virus could live for several days outside the human body. On the other hand, 30% of secondary school teachers in Dawson et al.'s (2001) study incorrectly believed that the virus could live for several days outside the body. This study comes six years after Dawson's study and in recent years HIV and AIDS has been more prominent in public debate and media. Hence the fewer misconceptions could be attributed to the discussions and knowledge on HIV and AIDS being more accessible.

My sample group of 13 participants' subject matter knowledge of the transmission of HIV and AIDS was therefore excellent. All the teachers responded correctly to questions on the difference between HIV and AIDS, the body fluids that can pass on the virus and the transmission of the virus among adults and children. Also, on the question of transmission, all the teachers had a good understanding that sexual transmission, although the major way that HIV is spread in South Africa, is just one of many ways. This suggests that teachers' knowledge about HIV and AIDS includes a particular awareness of the South African context. May, one of the female teachers, explained about transmission: *You know mainly sex, unprotected sex, and blood through cuts, then the other one has a cut and touches the wound, then drug needles also, also when mothers give birth and don't take their medication.*

On the questions around HIV and AIDS prevention, the teachers unanimously identified two prevention measures: abstention from sex and faithfulness. They also mentioned the necessity of using condoms every time one had sex.

4.3.2 On attitudes (beliefs, feelings, behaviours/actions)

Attitudes are described as the way we feel, think and behave towards people, ideas or objects (Fazio & Olson, 2003, p. 139). Social scientists have provided a number of suggestions about how attitudes are shaped and what influences them. Their suggestions include, but are not limited to, the stimulus-response terms, classical conditioning and rewards (Lindzey & Aronson, 1985). As with knowledge, the teachers had a good sense of the attitudes expected of them by the Department of Education. In this regard, the interviews posed specific questions on their beliefs, feelings, behaviours and actions in relation to HIV and AIDS. The responses show that they were fully aware of the magnitude of the HIV and AIDS pandemic and the responsibilities expected of them as teachers.

There was no doubt or denial from all the participants with regards to their conviction about the existence of the HIV and AIDS pandemic. This is supported by the personal experiences of teachers with learners, parents and family members affected and/or infected by HIV and AIDS (see section 4.3).

This finding contradicts Visser's (2002) research in Mozambique where teachers involved in the study did not acknowledge the presence of HIV and AIDS in their community. A possible explanation could be the time difference of six years between Visser's study and this current one. One teacher aptly stated: *AIDS is no more a secret - not anymore. It was a secret then (when they studied for their teachers' diploma- HT) and you didn't talk about it.*

All 13 participants in the sample were unanimous in their belief that it was their responsibility to teach HIV and AIDS and that they had a role to play in this pandemic. As Linda explained: *I have a passion for it. We must take the responsibility and get involved.* May, another female teacher elaborated: *I don't have a problem because in Life Orientation (a compulsory subject in the revised national curriculum in South Africa-HT) we have to teach learners about HIV and AIDS. It is just part of a continuous day of work.* Further, most expressed a willingness to carry out this responsibility but insisted that more support was essential.

4.4 Theme 3: Knowledge and Attitudes within Bio-Ecological Perspective

This theme and its sub-themes probes deeper into the knowledge and attitudes of these teachers as confronted in the classroom and schools. While the teachers responded predictably on factual knowledge questions and attitudes, they offered a more complex picture in the open-ended interviews. This qualitative data assisted me in formulating and understanding their responses within the Bio-Ecological Systems Model. Their responses reflected how their knowledge and attitudes were tied to Microsystems (families, communities, schools, peers), Exosystems (Education, work associates, local community), and Macrosystems (class, race and culture). Several sub-themes were identified:

- Systemic Knowledge of teachers: Awareness of connections between systems
- Impact of culture on teachers' attitudes and behaviours around sexuality and HIV education in the classroom

- Religious beliefs and attitudes to HIV and AIDS
- Impact of personal encounters with HIV and AIDS on teachers' knowledge and attitudes
- Critical engagement with systems

These sub-themes enable us to understand the multiple challenges facing teachers in combating the HIV and AIDS pandemic. It shows how they construct information in classrooms and schools, what attitudes they bring to it and how they change and adapt these to the challenges of HIV and AIDS.

4.4.1 Systemic knowledge of teachers: awareness of connections between systems

This first sub-theme emerged very clearly in four of the thirteen interviews. Teachers' responses below reveal their knowledge of the impact of social conditions on the schools and those who suffer with the HIV virus. They are also aware that the school and communities cannot be separated from each other in combating the disease. Thus, they are conscious of how their challenges in dealing with HIV and AIDS link to the Micro- and Macrosystems.

Quintin, a male teacher, referred to the spread of HIV and AIDS in the townships and blamed it on overcrowding and poverty. He explained: *the problem is also the houses we are staying in here. I read a book by Trevor Tutu and he says the boxes we are staying in are creating more sexual active teenagers. If you are living in a two-bedroom house your kids are sleeping on the floor and you are on the bed and you cannot tell if the kids are sleeping. So whatever you are doing with your wife they can see or maybe hear.* This strong view of the social conditions in which people live was affirmed by a female teacher: *the government has to get rid of the squatter camps immediately.* The impact of poverty on HIV and AIDS is very well attested (Visser, 2002) and is evident in the respondents responses. Also, according to Nattrass (2004, as cited in Breidlid, 2009, p. 26), the higher prevalence of HIV and AIDS in the black townships compared to other districts of the Western Cape can be attributed to the low income and education levels that generally exist in the townships. More significantly for this research both teachers

indicated the impact of the Macrosystem, politics and economics on the school, and the challenges of HIV and AIDS thereupon.

Two other teachers made similar connections between systems when they suggested that HIV and AIDS educational messages should inform both the school and community. The community should be included in the campaign against HIV and AIDS through the use of posters and workshops in the schools and in surrounding communities. Maria explained: *we are educators, wherever we go, whatever we do, we are educators*. She was supported by Nancy who corroborated this view stating that while teaching HIV and AIDS in school is a big responsibility, teachers can do much in the community to impart knowledge and act as role models. She mentioned the example of sharing a cup in public with an HIV-positive person. She believed that steps like this were necessary to break the silence and incorrect knowledge surrounding the illness.

In the interviews, the gender dimension of the HIV and AIDS pandemic also became clear within systems. Gender relations are especially part of the Microsystems of families, communities and schools that cannot be ignored in the production of knowledge and attitudes. Generally, the female teachers stood out in their views on the role of men and women in the HIV and AIDS challenge. They referred to the unequal roles with regards to sex and sexuality in their communities that had a direct impact on the spread of HIV and AIDS and safe-sex practices (knowledge). Some also referred to the misplaced trust (feeling) that women had in their husbands. Three female participants believed that gender disparities and discourses played a big role in maintaining and spreading the disease. This is Nora: … *ignorance is playing a big part today because men of today think that sleeping around is proving their manhood. [they think that-HT] one partner is not enough, not only men, from what I see and hear. Multiple partners - that's the problem*. Both Nancy and Nandipha supported Nora and attributed the virus to the promiscuity of men. They said that husbands brought the HIV virus into homes. This knowledge of inequality was important for women dealing with HIV and AIDS and invariably indicates its influence on (mis)perceptions.

Linda also blamed men for spreading the HIV virus through their promiscuity and their unsafe sexual habits. But her responses revealed an important attitude towards HIV and AIDS related to gender. According to her, these practices made women particularly vulnerable: *I've got many friends whom I know were not sexually immoral and they got AIDS. They trust their partners so you don't use a condom, but you don't know what your man does outside. There is that element of women … that we trust.* This particular attitude that she referred to was repeated in another context: *The man will say: you want me to use a condom means you are fooling around; they point the finger at you. They also say "the wife cannot tell me what to do and what not".* Linda's comments about the unequal relationships and the burden of trust placed on women brought out a particularly important attitude in the HIV and AIDS pandemic in this context; the vulnerability of women.

In this study, female participants revealed an awareness (knowledge) of gender imbalances in families and communities (Microsystems and Mesosystems) that were impacting upon the disease, and the so-called "trust" that they were forced to have in their husbands. Yet, none of the female teachers mentioned discussing these unequal gendered roles and its impact on HIV and AIDS with their learners.

According to Baxen (2009), research on HIV and AIDS to date has focussed on the biomedical discourse, ignoring the social and cultural contexts that the teachers above are pointing to. Crewe (2002, as cited in Baxen, 2009) elaborates and suggests that the emphasis of intervention programmes based on the biomedical nature of the disease has obscured considerations of the pandemic as a social disease within social contexts where individuals develop sexual identities, behaviours and practices and where teachers are expected to mediate knowledge of HIV and AIDS.

4.4.2 Impact of culture, on teachers' attitudes and behaviours around sexuality and HIV education in the classroom

The teachers did not deny the existence of AIDS and their civic responsibilities but most of them (12) struggled to teach HIV and AIDS education in the classroom. This sub-theme brings out the impact of culture

on teacher's attitudes and subsequent behaviour (attitudes). I begin with an elaboration of their upbringing relating to sex and sexuality, following by its impact in the classroom. Most of the teachers avoided teaching certain aspects relating to sex and sexuality (affect attitude) due to their cultural backgrounds.

In talking about their upbringing, teachers were willing to discuss their own experiences in learning about sex and sexuality. Among this group of teachers, learning about sex or engaging in discussions about sexuality with parents and/or guardians was rare or non-existent. Silence around sex and sexuality was the norm within this context. Nina, who grew up in Port Elizabeth with four siblings recalls: *I didn't know what sex was, but I knew that if I had sex I would get a baby.* May, now a mother of two boys, also provided an appropriate example. She had a child as a teenager and blamed it on the cultural silences associated with sexuality in her community: *Even me, I was not taught to handle myself when I am 15 or 16. I became pregnant and my mother was never at home- she was a sleep-in* [domestic worker who lived at her place of employment] *and my grandmother was working at the clinic in Gugulethu. The clinic staff, they knew me, so I was afraid to ask at the clinic in case they tell my mother. It's appropriate that they speak about sex but it doesn't happen, not in our black community. It will never happen, never. You will never be taught about sex, never.*

Some teachers said that the job of teaching younger ones about sex and sexuality was left to the older siblings and the grandparents. In questioning Nina as to who told her that she would fall pregnant, she explained: *My grandmother! That was their job. I was in high school- it was a way of warning. I wasn't even allowed to watch people kissing. It was a bad thing. I grew up knowing you are not allowed to kiss, stand and talk to a boy. They made it as if it's a disease-'if you do this something bad will happen,' they instil that fear. They didn't mention it (sex- HT). Most of us grew up like that.*

According to Nora, who grew up in the Eastern Cape, and came to Cape Town to study at the University of the Western Cape: *The information I got about menstruation and all that came from friends and my grandmother. And*

very often that wasn't correct information. Like - there were no eggs in our house, my grandmother said: 'If you eat eggs, you will like boys.'

Some teachers reported being told not to play with boys or to stay way from boys once they began menstruating. Often these messages were not specific and somewhat obscured as Nina states: *My parents don't explain anything, they just tell you, you must not play with the boys and we don't ask them - too much respect and discipline.*

Similarly, in describing how she learnt about sex and sexuality, Cindy, who also grew up in Gugulethu explained: *the person who taught me about sex was my guidance teacher in high school - a ah not in our black community - you learn nothing there (referring to discussing sex in the home context-HT).*

There was some difference with the male teachers. While male teachers took it for granted that they knew how to relate to the opposite sex, they also expressed difficulties talking about sex and sexuality in their classrooms related to their own upbringing and culture. Mike, whose wife is a nurse and is HIV-positive, put it in this way: *Teaching generally is interesting. Teaching sex is mostly degrading. I cannot even talk to my (own-HT) child (about the subject-HT). To teach HIV and sex, it is not easy for me because you know we are not taught about it ourselves. The problem is the parents, our culture, versus what we are doing.*

Their personal experience was compounded and complicated by what was allowed and disallowed in the use of sexual terminology, particularly in isiXhosa. Using explicit terminology in isiXhosa for body parts related to sexual activity was not allowed since it was perceived to be vulgar and offensive. Cindy: *In the Xhosa culture if you use terms for sexual organs it means you are vulgar, because these words they are used to swear, so if you use them it means you are swearing or insulting one another. When we grew up we called the female private part 'a sheep' not by its real name.*

Such descriptions highlighting the cultural silence around sex and sexuality was common among the group. In general, knowledge and information about sex and sexuality was assumed to be obtained from older siblings, friends and

grandmothers. The lack of awareness and knowledge about sex and sexuality had life-changing consequences for one of the 12 participants; she fell pregnant at age 16.

These experiences articulate the acquired cultural values about sexuality with which the teachers grew up. More significantly, they had a direct impact on the difficulties experienced by teachers in teaching HIV and AIDS. Twelve of the 13 teachers indicated that they avoided teaching directly about sex and sexuality. Rather they focussed on healthy living, coping with persons who were suffering with the AIDS virus, how one should treat someone who was ill and awareness of how one can contract the illness. Of the 13 teachers, two-thirds acknowledged that abstention was not the main message given to the learners, since that may have required the mention of condoms.

The teachers justified their lack of imparting knowledge about HIV and AIDS and subsequent attitudes by stating that learners were too young in the intermediate-phase of primary school to discuss sex. Other reasons hinted at their cultural background: the difficulty of using isiXhosa words for explicit sexual terminology and the feeling that HIV and AIDS education would encourage those who are not yet sexually active to become so. And yet, these teachers continue to believe that HIV and AIDS education should be taught in primary schools, particularly in the intermediate-phase. They were fully aware of the HIV and AIDS pandemic as they have confronted it in their schools and homes. The teachers believed that approximately 10-15% of learners between Grades 4-7 were already sexually active and there were cases of teenage pregnancies in all the participating schools. These findings were corroborated by Knut-Inge's (1977) research which found children were becoming sexually active at a much younger age than previously. There was a clearly a contradiction between the avoidance of certain important aspects of HIV and AIDS and the realisation of the importance of imparting knowledge about it. Two teachers mentioned a possible solution; the active sharing of skills and knowledge to teach about HIV and AIDS within the schooling system. The suggestion was to swop teachers so that those comfortable with teaching sex and sexuality would take over the teaching of HIV and AIDS.

The complex and contradictory attitudes (feelings) of teachers may be explained by the clash between attitudes promoted by two systems. The home culture of this context (Microsystem) promoted a very different set of attitudes from that of the Education Department and HIV and AIDS education modules (Exosystem). For the most part, teachers were not able to reconcile feelings and beliefs between these two sets of values. And yet, one notices that conditions are beginning to change their views (knowledge) and attitudes with respect to HIV and AIDS. For example, being fully aware of the HIV and AIDS problem, teachers could not ignore the need for HIV and AIDS education within this context. However, they have highlighted the need for acknowledgement of cultural aspects, particularly deeply held cultural beliefs and practices about sex and everyday sexual practices that clearly play an important role and impact on their mediation of HIV and AIDS information in their classrooms.

4.4.3 Religious and moral beliefs and attitudes to HIV and AIDS

Religious beliefs (another Microsystem and Macrosystem) also impacted on HIV and AIDS education in the classroom. No specific questions were posed on religion to the teachers and they offered this understanding without prompting. The interview materials suggested that religious beliefs played a big role in developing knowledge on, and attitudes about, HIV and AIDS. Unlike cultural background issues discussed in the previous section, religious beliefs provided some teachers with a means with which to deal with the pandemic. For some, religion represented a hope (feeling) that a cure would be found. Others, mainly men, used religion to take a moral approach (feeling) to those suffering from HIV and AIDS. Religious beliefs also provided a good example of a Mesosystem in the Bio-Ecological Systems Model as they indicate the relationships between religious values (from another Microsystem) and school contexts.

The teachers offered varied religious explanations for the existence of the HIV and AIDS virus. While most of the respondents saw HIV and AIDS as a health hazard - a disease like any other disease, Maria alluded to religion when explaining her beliefs about HIV and AIDS: *HIV is just a virus, only God*

knows what comes up because he's the one who created us. We relate to the Israelites from the Bible, because there were those diseases, but at the end when people pray, the medicine for it did come - the cure, whatsoever, did come. She believed in a cure for AIDS: *there will be a cure for it, because God is God, he knows everything, there are no impossibles when you believe in Him*. For Maria, belief in God was a source of hope (feeling) in the face of the pandemic. She was supported by Niel: *HIV can be cured through prayer- the power of the Lord can cure everybody.*

Their religious beliefs may be contrasted with another participant who seems to have lost hope. Instead of a cure from God, Mike saw terror and death in HIV and AIDS: *HIV in this community has created terror because it's a disease without cure, which takes you to your death*.

Niel adopted a different attitude to the pandemic. He believed that people were being punished with HIV and AIDS for practicing pre-marital sex: *It is a punishment, yes, if you don't listen to the rules, don't listen when told. In our tradition you don't have to sleep with someone until you get married; now they are being told and they don't listen, so this is a punishment for them.* This more morally judgemental belief towards people living with AIDS was partially supported by another, Mike. Mike also believed that HIV and AIDS was a punishment for immoral activities, but emphasised its destructive nature: *Generally, it's not only immorality, it's a disease that we need to be aware of, accept that it's alive and killing*. This contrasts with Nora who was more emphatic that HIV and AIDS was not punishment: *it (HIV and AIDS) is not a punishment.*

A clear moralistic attitude was presented by two-thirds of the teachers who attributed blame to various groups of people. These included young girls who slept with older men for money and gifts, men in general, prostitutes, and the government (for not introducing stricter laws against prostitution). They adopted a negative moral stance towards individuals who contracted the disease from sleeping around and unprotected sex. While participants reacted negatively when the cause of infection was perceived to be in the control of the HIV-positive individual, they were less blameful and less likely to hold the

individual personally responsible if the cause of infection was cited as transfusion or beyond the control of the individual. This finding was supported by the research of Stinnett et al. (2004) and Chifunyise et al. (2002) (See Chapter 2, section 2.6.4).

4.4.4 Impact of personal encounters with HIV and AIDS on teachers' knowledge and attitudes

Teachers in South African schools, particularly in poor communities, stand at the coal-face of the pandemic. In this section, I turn to the effect of this close encounter with HIV and AIDS. This study's use of the Bio-Eco Systemic Model points out that teachers don't develop knowledge and attitudes in isolation, but in relation to the family, home and community. Their interaction, particularly with people living with HIV and AIDS, changes their knowledge of and attitude towards HIV and AIDS. This section highlights the changes in knowledge and attitudes among these teachers over time, and their awareness of the value of a close encounter with people living with HIV and AIDS for the educational process. The data brought out the transformation in attitudes and knowledge in a very clear manner, confirming one of Baxen's theses that states that interaction with people who have HIV and AIDS has a positive impact on an individual's behaviour (Baxen, 2006). Finally, this section points out the dissonance between teachers' beliefs and behaviours in serving people living with HIV and AIDS (section 4.4.4.3). This is supported by research on attitudes (Baron et al., 2006), that suggests that cognitive dissonance, which is an unpleasant internal state resulting from discrepancies between attitudes or attitudes and behaviours, tends to produce attitude change.

In order to understand events or experiences that may have shaped teachers' knowledge and attitudes on HIV and AIDS, all the participants were asked whether they knew someone in their immediate environment who was HIV-positive. If the response was the affirmative, they were asked to describe their personal encounter with someone who was HIV-positive. All 13 participants responded that they knew someone who was HIV-positive, and all unanimously indicated that the person they knew was a family member or

close friend, neighbour or colleague (Micro and Mesosystems). HIV and AIDS was a personal reality for the large majority of the sample of teachers under investigation.

Most of the teachers often also quoted their personal efforts in supporting learners with HIV and AIDS. Maria elaborated on the support she gave to a parent of a learner: *On this occasion I give advice to a parent. She was giving treatment at 7 o'clock. I advised her to give treatment at 5 o clock in the morning then he (*the learner*) can sleep for two hours so when he arrives at school he won't be drowsy. Because when he had the treatment at 7 o' clock he would be fast asleep at 8 or 9 o' clock in the class.* Other teachers like Nancy mentioned sending food parcels home with learners by way of support. Nandipha mentioned an incident at her school: *Last year there was a child who passed away who was HIV-positive. Apparently the child had no parents, he was the only one left and living with grandparents who were not working. It was a problem to bury that child, but the school played a leading role. They raised funds, they organised some sponsors from taxi drivers you know to buy the coffin and bury this child.* Thus, teachers are interacting with HIV and AIDS within different micro-systems. They were not just limiting their efforts to schools. Both the above examples highlight the teacher's in-depth knowledge of the learner's personal situation with regards to HIV and AIDS and the positive emphatic attitudes towards these learners and their families.

Having an encounter with people with HIV and AIDS was very important for some teachers as it increased their experiences and knowledge, and even changed their attitudes (Raised by at least five teachers). Maria, spoke movingly about a family member who is HIV-positive: *"My cousin's sister, she was always fat and one day she was admitted at Jooste* [hospital]*. I went to visit her at her home. I arrived there and was shocked. She was so thin and the back was like this (making a curve with her hand), but I told myself, I must not cry because she did not reveal her status and nobody knows. They told us the doctor said she had pneumonia. I sat with her and ask her what the problem is, she just cry and cry, mind you she just graduated from PENTECH and this come up. I sacrifice from my job, that every Wednesday I take her to Jooste for the treatment. There I heard about the CD4 Count, when I*

accompanied my cousin. If CD4 Count is below 200 it's bad, hers was 170. Now she will tell you that I nearly died but because Maria –'if Maria wasn't there I should have died', she told my daughter.

Maria's story is just one of the many personal stories shared with me. The accounts suggest that some of the teachers' knowledge of HIV and AIDS was useful in supporting members of the community suffering from the illness. Moreover, Maria's personal story points to the empathy and willingness of some to support members of their families suffering from HIV and AIDS. According to Maria, the knowledge that she gained on HIV and AIDS at school allowed her to immediately identify the symptoms and provide the appropriate support. More significantly, however, was the fact that this personal experience improved her factual knowledge about HIV and AIDS. She said that she did not know anything about the CD4 Count before this.

Quintin shared his personal experience and how he supported a family member with his HIV and AIDS knowledge. He explained how it led to feelings of empathy and compassion: *Last year, when I came home, I find my younger sister sleeping on the couch. I go to my room to relax. She came to my room. She told me she was not feeling well yesterday, so she went to the clinic. They told her she was HIV-positive. You know, I was upset and shocked, but I ask myself how much more does she feel, how can I show my feeling to her. So, I told her: "you are very strong for the fact that you have the courage to tell me today. And luckily for you, you are not smoking, or drinking, it's a plus to fight the disease. What is important is for you to tell the family, our mother, but, when you ready. Now, you need to go the clinic each time to check your CD4 Count, and if there are any clubs, support groups or meetings for HIV and AIDS, go, they will help you".*

While most of the participants expressed reluctance to teach certain aspects of HIV and AIDS, especially those related to sex and sexuality, many were jolted into action when confronted by their circumstances. Yet it appears that this must happen before they display compassion and a subsequent attitude change. Their behaviour towards learners affected and infected by AIDS presented a more active and positive stance.

Mike explained how and why he started teaching HIV and AIDS: *In 2003, something happened. I was teaching the time line and one child came to me crying. I asked this child "what is wrong with you?" She said;" Sir, I would like to talk to you in private. I overheard my mother disclosing to my stepfather that she is HIV-positive". At that time I had to do some counselling. Since then I started to teach learners about HIV and AIDS and give them the awareness.* This shows that other skills, in this instance counselling, are needed in the school context. This reflects the pastoral role, one of many expected of educators by the Norms and Standards for Educators (2000) (See section 2.55).

According to Linda, being introduced to HIV and AIDS by individuals who were living with the illness had a greater impact on her than reading books on the subject. It was interfacing with the disease that made her change her behaviour towards people living with it. Nina confirmed her views and added a crucial point: *If you know, when you are talking about this disease it is better if it comes from someone who has it. Bring one infected person to teach about the disease. Because living with HIV and studying it from a book is two different things. Bring different people who are in different stages into the school, so that they can see if you don't take care of yourself this is what is going to happen. If you take ARV's you can prolong your life-ya, because talking about something they cannot see, especially in area like this doesn't help, does help, but not enough to talk about it.* What Nina was doing is transforming an acquired awareness (knowledge) into a teaching strategy. Here we see how an experience at home was being imported into the HIV and AIDS curriculum at school and impacting positively on her attitudes towards infected people. Baron et al. (2006) explained this view suggesting that attitudes formed on the basis of direct experience with the object can exert a stronger influence on behaviour than ones formed indirectly.

While many teachers in my study held negative feelings and beliefs around particular aspects of HIV and AIDS (section 4.4.2 - 4.4.3), *all* of them responded positively to providing support to the learners in their classes. Personal encounters of the kinds discussed above may have contributed to this dissonance between belief and behaviour.

Nandipha related a telling account: *sometimes the children become sick here* (meaning in class- HT). *If I know, then, I support it to ensure they take their medication every morning, and if the child is sick, I make a place in the class where she can lie down and I stay with her inside. Then when the parents come I tell her, so and so, was feeling sick today.* This raises an important point about the teachers' feelings and attitudes as this study illustrates. Teachers in this study adopted certain negative beliefs and feelings around HIV and AIDS under certain conditions. They also displayed evidence of seemingly negative influences from their cultural contexts such as the gender disparities between males and females. Yet, this in no way, negatively affects their behaviours and actions towards ill family and learners infected or affected by HIV and AIDS. Rather their behaviour was sympathetic and helpful. This suggests that feelings do not always influence behaviour.

4.4.5 Critical engagement with systems

The final theme draws out the active and critical engagement of teachers with the systems that impact upon them. Principally, these are the Macrosystem of the Education Department (in this case, the Western Cape), and the Microsystem and Mesosystems of the community within which their schools are located. Teachers' views might appear to be grievances against "Big Brother" and "Evil Society" but may be worth a second look within the ubiquitous Bio-Ecological Systems Model of Bronfenbrenner (2004). Within this model, the views represent aspects of the Exosystem and Macrosystem; viz. the impact of the society and educational policies on their knowledge and attitudes and roles as mediators of HIV and AIDS in their schools.

The teachers' knowledge and attitudes presented below show that they are not passive recipients of knowledge, but rather are shaping and being shaped within the context of being mediators of HIV and AIDS information in the context of their schools. Through their voices, we have heard how they make choices about what knowledge to teach, how their attitudes are shaped by their experiences and the ways in which gender, religion, culture and the community impact on their knowledge and attitudes.

Some of the teachers expressed their frustration with society's response to HIV and AIDS and its effect on the school. Lack of effective strategies to limit the spread of the disease compounded the problem at schools. Cindy made the following comment about the challenges facing HIV and AIDS education: *Most of the people are being educated about this HIV, but there is ignorance in us because we are having a problem of ignoring things. People are not willing to use condoms. That is the problem. People are not using condoms because they so no they have many issues about condoms what, what, what like not enough sexual pleasure or trusting the partner, but the only thing is to be honest with yourself. If you want to live longer, protect yourself in any way.*

Mike corroborated this: *Maybe you have sex and use a condom, then in April one time you don't use it and you forget. Then when you are tested HIV-positive, you say no I've been doing the right thing forgetting that one minute-that's the problem you see.* Both point to the almost insurmountable problems teachers face in stemming the tide of the pandemic.

In engaging critically with the systems that impact on them, teachers expressed a number of opinions on educational policies that impacted upon HIV and AIDS educational strategies, of which three will be mentioned. Three of the teachers commented on the disclosure policy of the Department of Education (see section 2.5.5). They believed that disclosure of teachers living with the HIV virus or AIDS could be helpful. Other teachers felt that HIV and AIDS education should be an examinable subject. In their view, the unspoken message was that this material was less important than other subjects. Two studies in Zimbabwe and South Africa also mentioned that although HIV and AIDS prevention was mandated, it was not included in the examination (Ayo-Yusuf et al., 2001; Chifunyise et al., 2002). In each case, teachers commented that the lack of examination gave the sense that HIV and AIDS prevention was not a high priority. A third example was their suggestion that HIV and AIDS should be integrated into the broader curriculum, and not limited to the Life Orientation lesson. Maria offered a practical suggestion: *Sometimes even in math you count the numbers on the graph of how many people are infected, so you don't need to teach HIV alone*.

Whether one agrees with these assessments or suggestions, it is clear that teachers as HIV and AIDS educators feel the impact of policies and social trends over which they have limited control. What also becomes evident is that teachers are not simply deliverers of “an uncontested, already negotiated (and agreed upon) body of HIV and AIDS knowledge” (Baxen & Breidlid, 2009b, p. 18). Rather, they have engaged critically within the various systems in understanding and implementing their roles and responsibilities as HIV and AIDS mediators in schools as expected of them (see section 2.5.5 – Discussion of Norms & Standards 2000).

4.5 Summary of Findings

In an attempt to understand and explore intermediate-phase primary school teachers’ knowledge and attitudes towards HIV and AIDS, I adopted an interpretive approach framed within the Bio-Ecological Systems perspective. This approach allowed me the opportunity to carefully listen to, and note, the meaning the participants gave to their world through their experiences. It provided a lens to view the unique experiences that have shaped and influenced their knowledge and attitudes around HIV and AIDS. Furthermore, it created the space for the participants’ voices to be heard.

I began the study with a view to understanding the participants in my study. My findings show that the group of teachers were fairly homogenous: All the teachers described growing up in the Eastern Cape or in a township in Cape Town. Their experiences around sex and sexuality as a cultural taboo were also similar.

Specific questions on knowledge and attitudes were also posed (Appendix A). An analysis of the responses revealed good levels of knowledge of HIV and AIDS. All 13 participants were unanimous in their awareness of the existence of HIV and AIDS, and in their belief that it was their responsibility to teach it in schools.

When probed further about their knowledge and attitudes, this particular cohort of teachers offered a more complex picture of the construction of knowledge and the shaping of attitudes. These were discussed in theme

three, (five sub-themes) with extracts from the interviews illustrating the Bio-Ecological System Model. The themes enabled us to understand the construction of knowledge in HIV and AIDS education practices and inter-action with the systems outlined by Bronfenbrenner (Section 2.2.1). They showed an awareness of how the challenges in dealing with HIV and AIDS existed in several systems identified by Bronfenbrenner. For example, they revealed an awareness of the impact of social conditions such as poverty on the schools and on those suffering with the HIV virus.

Assumed gender roles as part of the Microsystems and Mesosystems of families, communities and schools cannot be ignored in the production of knowledge and attitudes. This was no different in this sample of participants. Some of the female teachers were acutely aware of the unequal gender roles in their Microsystems. This extended into their knowledge and expectations with regards to sex and sexuality. In their Microsystems this had a direct impact on the spread of HIV and AIDS and safe-sex practices. Yet, despite this knowledge and awareness, the teachers provided no indication of tackling this aspect in their classrooms.

The teachers in this study also expressed difficulty with imparting knowledge about HIV and AIDS in the classroom. Their behaviour around teaching HIV and AIDS suggests that they avoided certain aspects of the curriculum, particularly when it would involve the use of explicit terminology related to sex and sexuality - they focussed on the aspects that did not contradict specific cultural taboos such as using gloves before cleaning an open wound. The inability or reluctance to teach topics of relevance to HIV and AIDS was attributed to their own experiences and culture. This shows how participants made sense of their own experiences and how these shaped their attitudes, behaviours, actions and beliefs. Viewed from the systemic perspective, this shows the strong interplay between culture and prior experiences that in turn affect and influences how teachers enact their roles in the classrooms.

For some teachers, religious beliefs helped them deal with the HIV and AIDS pandemic. On the one hand, religion provided a feeling of hope; there would

be a cure. On the other hand, a moral stance against the victims of HIV and AIDS was adopted leading to negative attitudes towards them.

Various teachers' interaction with people living with HIV and AIDS changed their knowledge of and attitudes towards HIV and AIDS. It also pointed to the dissonance between their beliefs and behaviours in serving people living with HIV and AIDS. When confronted with people affected or infected with the virus these teachers indicated using their knowledge to support and advise family and the parents of learners (see also chapter 2, section 2.6.3). This response reflected how their knowledge and attitudes were tied to Microsystems (families, communities, schools and peers), Exosystems (Education Departments), and Macrosystems (class, race and culture).

The final theme drew out the active and critical engagement of teachers with the systems that impact upon them: Exosystem of the Education Department (in this case, the Western Cape) and the Microsystem and Mesosystem of the community within which their schools were located. Teachers felt the impact of these (e.g. poverty) and knowledge on HIV and AIDS delivery.

From the discussion it is evident that teachers have much to offer in terms of supporting a programme that addresses HIV and AIDS in schools and in their communities. A deeper understanding of their backgrounds, their beliefs and their actions is instrumental in shaping and combating the battle of HIV and AIDS in our communities.

4.6 Conclusion

In this chapter I discussed the dominant themes that emerged from the data collection process. These were categorised and discussed in detail with extracts from the interviews, which I believe captured the essence of each theme. This in turn allowed for the commonalities and differences in the voices of the participants to be heard and identified.

In the final chapter I shall provide a summary of the preceding chapters, identify the limitations of this study and suggest recommendations for future research.

5 CHAPTER FIVE

EVALUATION

Chapter Five begins with a summary of the previous chapters. This is followed by a discussion and conclusions of the main points of each chapter. Thereafter, the limitations of this study are explored and presented, followed by recommendations and suggestions.

5.1 Summary and Conclusions

The purpose of this study was to understand intermediate phase primary school teachers' knowledge and attitudes towards HIV and AIDS within a particular social context, in Philippi, Cape Town. Statistics point to high prevalence of HIV and AIDS in South Africa (Chapter 1 section 1.1). To fight the HIV and AIDS pandemic, schools, particularly primary schools, are being recognised as strategic places for increasing HIV and AIDS knowledge and prevention behaviours. This is motivated by research that shows that HIV and AIDS prevention is most effective before unhealthy sexual habits are developed; most children attend primary school; and more and more children are becoming sexually active at a younger age (10-12 years) (section 1.1). The underlying expectation with using schools as primary mechanisms in the HIV and AIDS pandemic is that teachers will mediate the relevant knowledge and attitudes. Hence, primary school teachers in the General and Education Training (GET) band who teach Grades 4, 5, 6, and 7 are strategically positioned in the battle against HIV and AIDS.

This study extended the inquiry by focussing attention on teachers and the systems with which they are connected in one way of another. Hence, the Bio-Ecological Systems Model of Bronfenbrenner (section 2.1) was identified as the most effective way of examining this relation within systems. Moreover, the following key questions formed the backbone of the research:

- How did the teachers perceive their task of teaching HIV and AIDS in the classroom?

- How was their knowledge about, and attitudes towards, HIV and AIDS obtained, mediated and constructed and how did it invariably affect their teaching?

Chapter Two explained the Bio-Ecological Systems Model used to understand intermediate-phase primary school teachers' knowledge and attitudes around HIV and AIDS (section 2.2). The model has had a major influence in understanding families and schools, as well as the relationship between them and their social contexts. While it was postulated that teachers were strategically positioned to mediate information that might lead to increased knowledge about HIV and AIDS and other preventative measures, their prior experiences, knowledge and attitudes impacted on delivery in both the classroom and the broader school context. The systems model provided the framework for understanding teachers, particularly their approach to HIV and AIDS in their classrooms. The Bio-Ecological Systems model offered me the opportunity to understand how social and cultural practices shape lives and experiences. It also provided a framework or lens from which to understand who teachers are, how they come to hold particular attitudes, views, beliefs and values about themselves as individuals. Further, this model enabled us to understand how teachers perceive the impact of HIV and AIDS on their lives. Together with the constructivist approach (see section 2.3) (on the construction of knowledge), it provides insight into how these professionals frame their understandings and attitudes around the HIV and AIDS pandemic, and invariably, the teaching process.

The literature review that followed charted the extent and value of the relevant research on teachers' perceptions of their roles in schools, and their knowledge and attitudes relating to the HIV and AIDS pandemic. Teachers in primary schools in general, and in the intermediate-phase in particular, are under-represented in research regarding HIV and AIDS. Research regarding teachers as HIV and AIDS prevention leaders has highlighted some contradictions and needs (see section 2.6). The research reviewed can be summarised as follows:

- There appears to be an obvious inconsistency between the level of responsibility given to teachers and the amount of research devoted to teachers as key players in the fight against HIV and AIDS (see section 2.6.1).
- With a few exceptions, knowledge disparities, misinformation and misconceptions around HIV and AIDS abound (see section 2.6.3) within the education context.
- Studies in Zimbabwe and South Africa have shown that training programmes improve teachers' knowledge and attitudes, and prepare them to offer HIV and AIDS prevention programmes in their schools (see section 2.6.3).
- Science teachers and health workers appeared to have more confidence and better knowledge than teachers of other subjects (see section 2.6.3.1).
- Many teachers simply failed to teach the required HIV and AIDS curriculum to their students (section 2.6.3.3) due to their discomfort with sexuality-based topics and their cultural experiences thereof. Teachers in many countries confirmed the need for, and have expressed their commitment to, HIV and AIDS prevention in schools (see section 2.6.4).
- Teachers lacked confidence and expressed high levels of discomfort with teaching HIV and AIDS prevention programmes (section 2.6.4.1).
- Gender made a difference (see sections 2.6.3.2 and 2.6.4.1) in attitudes towards HIV and AIDS.

Chapter Three outlined the research method. It explained its use of the qualitative paradigm using semi-structured interviews as a means of gathering data from 13 intermediate phase primary school teachers. This proved suitable for the theoretical model chosen and the specific questions probed in this research as it allowed for participant confidentiality and the space for their voices to be heard.

Chapter 4 presented the data analysis and findings. The group of teachers was fairly homogenous in that they all described growing up in the Eastern

Cape or in a township in Cape Town. Similarly, they all experienced any discussion of sex and sexuality as a cultural taboo (section 4.4.2). Specific questions on knowledge and attitudes (Appendix A) were posed and an analysis of the responses revealed good levels of knowledge of HIV and AIDS. Similar findings were revealed by Ndegwa et al. (2002) (section 2. 6): Teachers were unanimous in their awareness of the existence of HIV and AIDS and in their belief that it was their responsibility to address it in schools.

When probed further about their knowledge and attitudes, this particular cohort of teachers offered a more complex picture of their construction of knowledge and shaping of attitudes around the topic. This data was divided into three broad themes extracted from the interviews. The themes gave a better understanding of the construction of knowledge and attitudes in HIV and AIDS education practices, and inter-action with systems as outlined by Bronfenbrenner (section 2.2.1).

They showed that teachers are aware of how the challenges in dealing with HIV and AIDS existed especially in the Micro- and Macrosystems. For example, teachers revealed an awareness of the impact of social conditions, such as poverty, on the schools and those who suffer with the HIV virus. The teachers in this study expressed their difficulties with teaching HIV and AIDS education in the classroom, despite sound knowledge, when the focus of the topic was sexuality. Inability to teach sex and sexuality relevant to HIV and AIDS was attributed to their own experiences and culture. Hence, their behaviours around teaching HIV and AIDS suggested that they avoided certain aspects of the curriculum, and taught more of the aspects that were not considered cultural taboos. This showed how participants made sense of their own unique experiences and how these shaped their behaviours, actions and beliefs. Viewed from the systemic perspective this showed the strong interplay between culture and prior experiences that in turn affected and influenced how teachers enacted their roles in the classrooms.

For some teachers, religious beliefs provided the means with which to deal with the HIV and AIDS pandemic. On the one hand, religion provided a feeling of hope that there would be a cure. On the other hand, a more moral stance

against the victims of HIV and AIDS was adopted particularly when it appeared that HIV and AIDS was contracted through promiscuous sexual behaviour.

Gender roles were part of the systems of families, communities and schools that cannot be ignored in the production of knowledge and attitudes. This was no different in this sample of participants. Some of the female teachers perceived unequal gender roles and expectations with regards to sex and sexuality in their communities as having a direct impact on the spread of HIV and AIDS and safe-sex practices (knowledge) in their communities. It invariably influenced knowledge and attitudes.

The teachers' interaction, particularly with people living with HIV and AIDS, affected their knowledge of, and attitudes towards, HIV and AIDS. It also pointed to the dissonance between their beliefs and behaviours in serving people living with the disease. When confronted with people affected or infected by HIV and AIDS, teachers indicated using their knowledge of HIV and AIDS to support and advise family and parents of learners. Baxen (2006) and Ndegwa et al. (2002) (see also chapter 2, section 2.6.3) suggests that the difference may be attributed to the direct involvement of the subjects with people living with AIDS This responses reflected how their knowledge and attitudes were tied to Microsystems (families, communities, schools, peers), Exosystems (Education Departments), and Macrosystems (class, race and culture).

The final theme drew out the active and critical engagement of teachers with the systems that impact upon them: the Macrosystem of the Education Department (in this case, the Western Cape), and the Microsystem of the society within which their schools were located. Teachers felt the impact of these on HIV and AIDS delivery.

5.2 Limitations of the Study

There are a number of possible limitations in this study. In terms of the research method used, the use of semi-structured interviews to understand teachers' knowledge and attitudes towards HIV and AIDS limits the

understanding of the teachers' actual responses and interactions in the classroom context. The interviews yielded significant data. However it may not accurately reflect exactly how the teachers respond in reality in their classrooms. Further research would clarify this.

The study of this set of schools cannot be generalised to other schools. This research was limited to a sample of teachers from "Xhosa" backgrounds. More in-depth studies across the Western Cape are needed to obtain a better perspective on the systemic impact of HIV and AIDS on intermediate phase teachers and schools, specifically their knowledge and attitudes.

5.3 Recommendations

The following recommendations were made:

- The roles and responsibilities expected of teachers in terms of teaching HIV and AIDS (section 2.5.5) are almost completely devoid of any acknowledgement of cultural and contextual aspects of the teachers own Microsystems that clearly influence their knowledge and attitudes. More research is clearly needed to understand how teachers, as active agents and mediators of knowledge, make choices about what knowledge to teach and what to withhold in their classrooms.

- This study has highlighted the need for teacher-training workshops on HIV and AIDS to recognise teachers' interactions with systems when designing HIV and AIDS education modules. In so doing, there should also be greater synergy between the Microsystems of schools and communities and the Macrosystems like Educational Units, Departments and Ministries.

- In designing materials and developing policies, trainers, policy makers and material developers need to recognise that teachers have much to offer in terms of supporting a programme that addresses HIV and AIDS in schools as well as in their communities. However, in order for them to offer appropriate and holistic support to communities, their peers and the learners' materials, training and policies need to recognise and

identify their knowledge and attitudes and the factors that have shaped them. A deeper understanding of teachers; their backgrounds, their beliefs and their actions that impact on what they do in the context of the classrooms, is instrumental in combating HIV and AIDS. Workshops on HIV and AIDS need to address these beliefs and attitudes. Culture and religion also have a huge impact on teachers' contexts, and need to be incorporated into training programmes. Culture and religion must be carefully appreciated for their complex roles.

- Workshops also need to take cognisance of the skills that need to be developed for effective delivery of an HIV and AIDS programme in schools. The skills teachers have identified include active teaching strategies such as role-play, drama, counselling and debating. Other skills can also be investigated.

- The experience and knowledge of teachers in context should be valued and fully utilised in the battle against HIV and AIDS. Teachers need to be recognised as producers of HIV and AIDS knowledge at crucial locations within schools and communities.

5.4 Concluding Remarks

In the past, there was little open discussion about the phenomena of HIV and AIDS in schools. Over the last decade this situation has changed dramatically, with significant research on HIV and AIDS being conducted across the globe, policies on HIV and AIDS institutionalised and workshops for training teachers on HIV and AIDS implemented. Few, if any, studies have focussed on understanding teachers and their role in HIV and AIDS prevention. This particular study attempted to understand intermediate phase primary school teachers' knowledge and attitudes within a South African primary school setting. By means of this qualitative research it is hoped that a better understanding of these professionals will provide policy makers, material developers and trainers with a better view of the elements needed for a victory over the HIV and AIDS pandemic.

6 REFERENCES

About Us: Phillipi. Retrieved December 5, 2009, from http://www.thembalabantu.co.za.

Alexander, J. (2005). *An analysis of pre-service teachers' HIV and AIDS knowledge, attitudes and self-efficacy and their HIV and AIDS teaching tasks.* Unpublished Master of Education, University of Cape Town, Cape Town.

Allen, R. E., Fowler, H. W., & Fowler, F. G. (Eds.). (1990). *Concise Oxford dictionary of current English*. (8th ed.). Oxford, New York: Oxford University Press.

Ayo-Yusuf, I., Naidoo, S., & Chikte, U. M. (2001). The role of primary school teachers in HIV prevention in SA. *South African Dental Journal*, *56*(12), 596-598.

Babbie, E. (1995). *The Practice of Social Research* (7th ed.). Boston: Wadsworth Publishing Company.

Babbie, E., Mouton, J., Payze, C., Vorster, J., Boshoff, N., & Prozesky, H. (2001). *The practice of social research.* Oxford: Oxford University Press.

Barasa, F., & Mattson, E. (1998). The roles, regulations and professional development of educators in South Africa: A critical analysis of four policy documents. *Journal of Education*, *23*, 41-72.

Baron, R. A., & Byrne, D. (1981). *Social Psychology: Understanding human interaction* (Third ed.). Boston, Massachusetts: Allyn and Bacon Inc.

Baron, R. A., Byrne, D., & Bronscombe, N. R. (2006). *Social Psychology* (11 ed.). Boston: Pearson Allyn & Bacon.

Baxen, J. (2006). *An analysis of the factors shaping teachers' understanding of HIV and AIDS.* University of Cape Town, Cape Town.

Baxen, J., & Breidlid, A. (Eds.). (2009a). *HIV and AIDS in Sub-saharan Africa. Understanding the implications of culture & context.* Cape Town: UCT press.

Baxen, J., & Breidlid, A. (2009b). Researching HIV and AIDS and education in Sub-Saharan Africa: Examining the gaps and Challenges. In J. Baxen & A. Breidlid (Eds.), *HIV and AIDS in Sub-Saharan Africa. Understanding the implications of culture & context* (pp. 3-15). Cape town: UCT Press.

Boler, T., Adoss, R., Ibrahim, A., & Shaw, M. (2003). The sound of silence: difficulties in communicating on HIV and AIDS in schools. Retrieved September 8, 2009, from http://www.actionaidusa.org/news/publications/hiv_aids/.

Boler, T., & Carroll, K. A. (2003). Addressing the educational needs of orphans and vulnerable children. Retrieved April 4, 2007.

Breidlid, A. (2009). HIV and AIDS, cultural constraints and educational intervention strategies. In J. Baxen & A. Breidlid (Eds.), *HIV and AIDS in Sub- Saharan Africa. understanding the implications of culture & context* (pp. 21-34). Cape Town: UCT Press.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist*, *32*(7), 513-531.

Bronfenbrenner, U. (2004). *Making Human Beings Human: Bioecological Perspectives on Human Development.* Sage Publications.

Chifunyise, T., Benoy, H., & Mukilibi, B. (2002). An impact evaluation of student training in HIV and AIDS education in Zimbabwe. *Evaluation and Program Planning*, *25*(4), 377-385.

Cichocki, M. (2009). What is HIV and AIDS? Understanding HIV and AIDS is not as simple as it may seem. Retrieved December 15, 2009, from http://aids.about.com/od/aidsfactsheets/a/whathiv.htm.

Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education* (5th edition ed.). London: Routledge.

Coombe, C. (2000). *Mitigating the impact of HIV and AIDS on education systems in Southern Africa.* Pretoria:.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* London: Sage Publications Ltd.

Dawson, l. J., Chunis, M., Smith, D. M., & Carboni, A. A. (2001). The role of academic discipline and gender in high school teachers' AIDS-related knowledge and attitudes. *Journal of School Health*, *71*(1), 3-8.

De Vos, A. S., Strydom, H., Fouche, C. B., & Delport, C. S. L. (2005). *Research at grassroots, for the social sciences and human service professions* (Second ed.). Pretoria, South Africa: Van Schaik.

Denzin, N. K., & Lincoln, Y. S. (1998). *The landscape of qualitative research. Theories and issues.* London: SAGE.

Donald, D., Lazarus, S., & Lolwana, P. (2002). *Educational psychology in social context: Challenges of development, social issues, & special need in Southern Africa.* Cape Town: Oxford.

Donald, D., Lazarus, S., & Peliwe, L. (2006). *Educational Psychology in social context* (3rd ed.). South Africa: Oxford University Press.

(1999). Draft National Policy on HIV and AIDS for learners and educators in further education and training institutions. *Department of Education*.

Durrheim, K. (1999). Research Design. In M. Terreblanch, K. Durrheim, & D. Painter (Eds.), *Research in Practice: Applied methods for social sciences* (pp. 29-53). Cape Town: University of Cape Town.

Durrheim, K., & Terreblanche, M. (1999). *Research in practice. Applied methods for social sciences.* UCT Press: Cape Town.

Eagly, A. H., & Chaiken, S. H. (1993). *The Psychology of Attitudes.* New York: Harcourt Brace Jovanovich Inc.

Engelbrecht, P., Green, L., Naicker, S., & Engelbrecht, L. (Eds.). (1999). *Inclusive education in action in South Africa.* Pretoria: Van Schaik.

Fazio, R. H., & Olson, M. A. (2003). The Sage handbook of social psychology. In M. A. Hogg & J. Cooper(pp. 139-160). London: SAGE Publications Ltd.

Fenton, P. (2002). WCED HIV and AIDS Life skill programme. Retrieved October 4, 2008, from http://wced.wcape.gov.za/branchIDC/special_ed/hiv_aids/info_2003.html

(2002). First nationally representative survey results of HIV prevalence. *Media Briefs 2002* Retrieved May 27, 2007, from http://www.hsrc.ac.za/Media_Release-164.phtml.

Fox, S., Oyosi, S., & Parker, W. (2002). Children, HIV and AIDS and communication in South Africa: a literature review. *CADRE: The Centre for AIDS Development, Research and Evaluation,* 31 pp.

Fraenkel, J. R., & Wallen, N. E. (1993). *How to design and evaluate research in education* (2nd ed.). New York: McGraw-Hill INC.

Freedman, J. L., Sears, D. O., & Carlsmith, J. M. (1981). *Social Psychology* (4th ed.). New Jersey: Prentice Hall Inc.

Green, L. (1998). *Narratives of cognitive development: some South African primary teachers stories.* University of Exeter.

Hardman, M. L., Drew, C. J., & Egan, M. W. (2002). *Human exceptionality: school, community and family.* Boston: Allyn & Bacon.

Hepburn, A. E. (2001). Primary Education in Eastern and Southern Africa: Increasing access for orphans and vulnerable children in AIDS-affected areas. Retrieved May 19, 2005, from www.usaid.gov/pop-health/dcofwvf/reports/edreps/hepburnfinal.

(2001). HIV and AIDS and Education. Retrieved 15 July, 2006, from www.icad-cisd.com.

Huberman, M. A., & Miles, M. B. (1994). *Qualitative data analysis* (2nd ed.). London: Sage Publications.

James-Traore, T. A., Finger, W., Ruland, C. D., & Savariaud, S. (2004). Teacher Training: Essential for school based reproductive health and HIV and AIDS Education. Focus on Sub-Saharan Africa., 26.

James, S., Reddy, P., Ruiter, R., McCauley, A., & Van der Borne, B. (2006). The impact of an HIV and AIDS life-skills program on Secondary School

students in Kwazulu-Natal, South Africa. *AIDS Education and Prevention*, *18*(4), 281-294.

Jordaan, W., & Jordaan, J. (1989). *Man in context.* Johannesburg: Lexicon.

Kachingwe, S., I., Norr, K., Kaponda, C. P., Norr, J., Mbweza, E., & Magai, D. (2005). Preparing teachers as HIV and AIDS Prevention Leaders in Malawi: evidence from Focus Groups. *The International Electronic Journal of Health Education*.

Kelly, M. J. (2000). *Planning for education in the context of HIV and AIDS.* Paris: International Institute for Educational Planning.

Knut-Inge, K., Ndeki, S. S., Leshabari, M. T., J., H. P., & Lyimo, B. A. (1997). AIDS Education in Tanzania: Promoting risk reduction among primary school children. *American Journal of Public Health*, *87*(12), 1931-1936, 1997.

Kunneke, M., & Orr, J. (2006). A framework for understanding inclusion. In E. Landsberg, D. Krüger, & N. Nel (Eds.), *Addressing barriers to learning: A South African perspective.* Pretoria: Van Schaik.

Kvale, S. (1996). *Interviews. An introduction to Qualitative Research interviewing.* Newbury Park: SAGE Publications.

Lal, S. S., Vasan, R. S., Sankara Sarma, P., & Thankappan, K. R. (2000). Knowledge and attitude of college students in Kerala towards HIV and AIDS, sexually transmitted diseases and sexuality. *The National Medical Journal of India*, *13*, 231-236.

Lawson, L. (1997). *HIV and AIDS and Development.* Yeoville, South Africa: Teaching Screens Productions CC.

Levine, S., & Ross, F. (2002). *Perceptions of and attitudes to HIV and AIDS among young adults at the University of Cape Town* (14). Cape Town: CSSR.

Lindzey, G., & Aronson, E. (1985). *Handbook of Social Psychology. Volume 1. theory and method* (3rd ed.). New York: Random House.

Lusk, D., Huffman, S., & O'Gara, C. (2000). Assessment and improvement of care for AIDS-affected children under five. Retrieved May, 28, 2007, from www.readytolearn.aed.org/PDF%20files%20for%20webpage/Under5final.PDF.

Lusk, D., & O'Gara, C. (2002). The two who survive: the impact of HIV and AIDS on young children, their families and communities. *Coordinators' Notebook: An International Resource for Early Childhood Development*, *26*, 3-21.

Mastropieri, M. A., & Scruggs, T. E. (2000). *The inclusive classroom: strategies for effective instruction.* New Jersey: Prentice Hall.

Merriam, S. B. (1998). *Case study research in education: A qualitative approach.* San Francisco: Jossey-Bass Publishers.

Merriam, S. B. (2002). *Qualitative research in practice: examples for discussion and analysis.* San Francisco: Jossey-Bass.

Mertens, D.,M. (1998). *Research Methods in education and psychology: Integrating diversity with quantitative and qualitative approaches.* California: Sage publications.

Mouton, J. (2001). *How to succeed in your master's and doctoral studies: a South African guide and resource book.* Pretoria: Van Schaik.

Naran, J. (2005). More younger children are having sex - survey. *Health Systems Trust* Retrieved January 3, 2010, from http://www.hst.org.za/news/20040877.

Ndegwa, D. M., Wangechi, L. K., Makohaa, A., Kijungu, M., Nyongesa, J., Kkonge, C. et al. (2002). Knowledge, attitudes and practices towards HIV and AIDS among students and teachers. *Journal National Institute of public health*, *51*(1), 56-59.

(2000). Norms and standards for educators. *Department of Education* Retrieved April 29, 2010, from http://www.polity.org.za/article/national-education-policy-act-norms-and-standards-of-educators-notice-82-of-2000-2000-10-12.

Patton, M. Q. (2002). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage Publications Inc.

Peltzer, K., & Promtussananon, S. (2003). HIV and AIDS education in South Africa: teacher knowledge about HIV and AIDS: teacher attitude about and control of HIV and AIDS education. *Social Behaviour and Personality*, *31*(4), 349-356.

Pequegnat, W., & Szapocznik, J. (Eds.). (2000). *Working with families in the Era of HIV and AIDS.* London: Sage Publications.

Reber, A. S., Allen, R., & Reber, E., S. (2009). *The penguin dictionary of psychology.* London: penguin books.

Remafedi, G. (1993). The impact of training on school professionals' knowledge, beliefs and behaviours regarding HIV and AIDS and adolescent homosexuality. *The Journal of School Health*, *63*(3), 135-157.

Robinson, M. (2002). Research in action and research for action: working in a participatory action research framework with a government department. *Journal of Education*, *28*, 105-121.

Roderick-Althans, L., & Bhavnagri, P. N. (1996). Strategies for overcoming obstacles in AIDS education for preteens. *Childhood in Education*, *73*(2), 70-77.

Setswe, G., & Malope, N. (2009). Monitoring the social and other impacts of HIV and AIDS in South Africa. *HSRC Conference* Retrieved December 1, 2009, from http://www.hsrc.ac.za/Research_Publication-21452.phtml.

Shisana, O., Mehtar, S., Mosala, T., Zungu-Dirwayi, N., Rehle, T., Dana, P. et al. (2005). *HIV risk exposure among young children: a study of 2-9 year olds served by public health facilities in the Free State, South Africa.* Cape Town, South Africa: HSRC press.

Singhal, A., & Rogers, E. M. (2003). Combating AIDS: communication strategies in action.

(2009). South Africa: HIV & AIDS statistics. Retrieved December 10, 2009, from http:// www.avert.org/safricastats.htm.

(2009). South Africa: System summary. *INCA: International Review of Curriculum and Assessment Frameworks* Retrieved 10 December, 2009, from http://www.inca.org.uk/2414.html.

Stinnett, T. A., Cruce, M. K., & Choate, K. E. (2004). Psychology in the schools. *4*(2), 211-219.

Stop AIDS Project. (n.d.). HIV 101. Retrieved May 27, 2007, from http://stopaids.org/resources/hiv101/.

Swart, E., & Pettipher, R. (2005). A framework for understanding inclusion. In E. Landsberg, D. Krüger, & N. Nel (Eds.), *Addressing barriers to learning: A South African perspective.* Pretoria: Van Schaikh.

(1996). The National Education Policy Act. *Parliament of the Republic of South Africa*, *27*.

Tyson, G. A. (1987). *Introduction to psychology. A South African perspective.* Johannesburg: Westro Educational Books.

Uwalaka, E., & Matsuo, H. (2002). Impact of knowledge, attitude and beliefs about AIDS on sexual behavioural change among college students in Nigeria: the case of the University of Nigeria Nsukka. *West Africa Review* Retrieved May 26, 2008, from www.aricaresource.com/war/vol3.2/uwalaka-matsuo.html.

Valimaki, M., Suominen, T., & Peate, I. (1998). Attitudes of professionals, students and the general public to HIV and AIDS and people with HIV and AIDS: a review of the research. *Journal of Advanced Nursing*, *27*, 752-759.

Vaughn, S., Bos, C. S., & Schumm, J. S. (2000). *Teaching exceptional, diverse and at-risk students in the general education classroom.* Boston: Allyn & Bacon.

Verma, R., Sureender, S., & Guruswamy, M. (1997). What do school children and teachers in rural Maharashtra think of AIDS and sex? *Health Transition Review*, *7*, 481-486.

Visser, M. (2004). *The Impact of individual differences on the willingness of teachers in Mozambique to communicate about HIV and AIDS in schools and communities.* Florida State University.

Visser, M. (2002). *Where teachers fear to tread - Communicating about HIV and AIDS in Mozambique*. Paper presented at the International Conference of the Association for Educational Communications and Technology (AECT), Dallas, Texas.

Winkler, G. (2004). *Courage to care: a workbook on HIV and AIDS for schools.* Johannesburg: Catholic Institute of Education.

Woods, J. (2004). Life Skills for HIV and AIDS Education in Africa. *EQ Review* Retrieved March 26, 2008, from http://www.equip123.net/webarticles/anmviewer.asp?a=354.

Yazdi, C. A., Aschbacher, K., Arvantaj, H. M., Abdollahi Naser, E., Asadi, A., Mousavi, M. et al. (2006). Knowledge, attitudes and sources of information regarding HIV and AIDS in Iranian adolescents. *AIDS Care*, *18(8)*(8), 1004- 1010.

7 APPENDICES

7.1 Appendix A: Guideline of Questions for Semi-Structured interview

1. Personal details: Age; children; married; your upbringing; family.

- How long have you been teaching?
- Where did you study/ how many years of study?
- Was HIV and AIDS included in the curriculum when you studied?
- Where and how did you learn about HIV and AIDS? If through workshops, how many did you attend?
- What Grade do you teach?
- How many HIV+ learners have you had in your classes in the last three years?

2. Your personal experiences with HIV and AIDS

- Family; community
- Can you describe an experience with an HIV+ child that you have had?
- When and how did you learn about sex and sexuality?

3. Specific Knowledge and Attitude questions:

- What does the HIV virus do?
- How do you think AIDS is transmitted from one adult to another?
- How do you think AIDS is transmitted to children?
- How can HIV and AIDS be prevented among children?
- In general, how can AIDS be prevented?
- If an HIV+ person has a CD4 Count of 200 or less what does this mean?
- What do you think are the reasons for the existence of AIDS?
- How do you feel about being given the responsibility to teach AIDS education?

4. General Attitude questions:

- What would you say/think if someone told you they contracted AIDS from sleeping around/multiple partners?
- What will you do if a learner discloses to you that he/she is HIV-positive?
- What are the challenges you face in teaching HIV and AIDS?
- What do suggest needs to be done in the battle against the HIV and AIDS pandemic?

5. Information about your school

- What kinds of support is provided by your school for those affected by HIV and AIDS in your school?
- What role do you play in your school (e.g. counselling, participate in community development initiatives that are relevant to HIV and AIDS, teach HIV/ AIDS)?

6. Curriculum perceptions:

- What aspects of the HIV and AIDS curriculum are you comfortable (or not) teaching?
- What resources and support that you have at your disposal?

7. General

7.2 Appendix B: Permission from the Western Cape Education Department

Navrae
Enquiries
IMibuzo **Dr RS Cornelissen**

Telefoon
Telephone
IFoni **(021) 467-2286**

Faks
Fax
IFeksi **(021) 425-7445**

Verwysing
Reference
ISalathiso **20080721-0008**

Wes-Kaap Onderwysdepartement
Western Cape Education Department
ISebe leMfundo leNtshona Koloni

Mrs Hawa Tayob
Private Bag X2
MITCHELL'S PLAIN
7785

Dear Mrs H. Tayob

RESEARCH PROPOSAL: UNDERSTANDING TEACHERS' KNOWLEDGE AND CHALLENGES REGARDING HIV/AIDS IN PRIMARY SCHOOLS.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **15th August 2008 to 15th March 2009.**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as submitted to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

    The Director: Research Services
    Western Cape Education Department
    Private Bag X9114
    CAPE TOWN
    8000

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen
for: **HEAD: EDUCATION**
DATE: 28th July 2008

7.3 Appendix C: Consent of Principal

Wes-Kaap Onderwysdepartement

Western Cape Education Department

Isebe leMfundo leNtshona Koloni

Reference
ISalathiso

EMDC: SOUTH METROPOLE

TEL: (021) 3702000

HAWA TAYOB

TEL: (021) 3702086
FAX : (021) 3722757

9 September 2008

Dear Principal

I would like to conduct research on intermediate phase teachers' knowledge and attitudes around HIV/AIDS for my MA thesis. To do this I would like to interview intermediate phase teachers at your school. This will involve doing individual and focus group interviews with intermediate phase primary school teachers at your school. All information will remain confidential and anonymity will be maintained by using codes for names.

If you are willing to be part of the project please complete the consent form on the next page and fax as soon as possible to: 021 372 1856: Att: Hawa Tayob

Kind Regards

Hawa Tayob

Imibuzo

JTH
METROPOLE

TEL: (021) 3702000

Western Cape Education Department

Isebe leMfundo leNtshona Koloni

HAWA TAYOB

TEL: (021) 3702086
FAX : (021) 3722757

I .....

Principal of ..... hereby consent voluntarily to participate in this study conducted by Hawa Tayob in partial fulfillment of her MA degree at the University of Stellenbosch.

Name:

Signature:

Date:

Fax to: 021 447 3712

Attention: Hawa Tayob

7.4 Appendix D: Consent of Participant

I ……from ……School in Phillipi

hereby consent voluntarily to participate in research regarding the knowledge and attitudes of teachers around HIV/AIDS. I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop the interviews at any time and withdraw as a participant in the research, and that this decision will not in any way affect me negatively.

I understand that this is a research project whose purpose is not necessarily to benefit me personally.
I have been informed by Hawa Tayob that she is conducting research in completion of her Masters degree in Educational psychology at the University of Stellenbosch. I understand the purpose of the research and the benefits thereof.

I understand that my answers will be anonymous and have been informed that confidentiality will be maintained, that I have a right to withdraw from the research project should I fear any potential harm to myself whether psychological, physical or otherwise.

I am also aware that I can request information on the findings/results of this project.

Signature:

Date:

7.5 Appendix E: Ethical Clearance from Stellenbosch University

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot • your knowledge partner

23 March 2009

Tel.: 021 - 808-2687
Enquiries: Sidney Engelbrecht
Email: sidney@sun.ac.za

Reference No. 122/2008

Mrs H Tayob
Department of Educational Psycology
University of Stellenbosch
STELLENBOSCH
7602

Dear Mrs Tayob

APPLICATION FOR ETHICAL CLEARANCE

With regards to your application, I would like to inform you that the project, *Understanding Primary School teachers' knowledge and attitudes around HIV/AIDS in the EMDC Metropole South Schools*, has been approved on condition that:

1. The researcher/s remain within the procedures and protocols indicated in the proposal particular in terms of any undertakings made and guarantees given;
2. The researcher/s remain within the parameters of applicable national legislation, institutional guidelines, and applicable standards of scientific rigor that are followed within this field of study and that
3. Any substantive changes to this research project should be brought to the attention of the Ethics Committee with a view to obtain ethical clearance for it.

We wish you success with your research activities.

Best regards

MS. M. HUNTER-HüSSELMANN
Co-ordinator: Research (Human and Social Sciences)